News By Teletype From 4 News Bureaus

National Petroleum News

News From Oil Industry Everywhere

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New Pricing Plan on Crude Is Postponed

By Teletype

TULSA, March 7. — President E. G. Hill of National Refining Co. announced today he was going to hold in abeyance for 3 weeks his plan to base the company's crude price schedule on the tank car price for gasoline.

This was in order that the stripper well operators affected would have an opportunity to assist the company in seeking another solution to its present problem.

His announcement was made at a meeting of the Oklahoma Stripper Well Assn., called to discuss the plan, which was first announced by Hill March 1. Hill had just arrived in Tulsa from a conference March 6 at Topeka, with operators in southeastern Kansas who would be affected by the new price plan.

President Hill told the stripper well operators frankly and clearly the position in which the National Refining Co. now finds itself. He said water flooding and new drilling had increased the amount of oil produced in the area in which the company buys crude, but that the refinery's capacity has not increased and will not be increased in the future.

The plant can handle efficiently 7100 barrels of crude daily, but the company has been taking almost 9000 barrels daily, he said, and now has 514,000 barrels of crude in storage. "That is a top-heavy crude inventory" Hill said. "I have no right to tie up that much money in crude. I plan to draw 2000 barrels a month out of storage."

Will Drop 4000 Barrels

Hill said that the company would have to be relieved of approximately 4000 barrels daily of the oil it is now purchasing. If Phillips Petroleum Co. continues to take 2200 to 2300 barrels daily for the remainder of the year, this would leave less than 2000 barrels daily that

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Texas Studies Plan To 'Equalize' Rates By States' Compact

AUSTIN, Tex., March 4. — Texas Railroad Commissioner G. A. Sadler, reluctant to wait for Washington's ICC to move to a decision on the southwest's charges of freight rate discrimination, is proposing an interstate compact between states affected in the southwest by the alleged discrimination. Sadler has asked Attorney General Gerald Mann for an opinion as to the legality of such a compact.

Sadler has proposed that the Texas commission sidetrack the famous Shreveport rate case decision under which the ICC regulates intrastate freight rates on theory that such rates "affect" interstate rates. He classed that decision as "a bogey to Texas and other states and an invasion of state rights."

Texas to Quiz Majors On their 'Gas' Stocks

N. P. N. News Bureau

TULSA, March 6.—The Texas Railroad Commission will stage another oil economics rodeo at its statewide proration hearing in Austin March 12, when chief executives of major oil companies using Texas crude in their refining operations will be asked to explain why they have been running so much crude oil to stills this winter.

The commission has invited executives from the same oil companies as were asked to have representatives at its Dec. 12th proration hearing and to report then on their crude oil and gasoline inventories at the start of the winter and on their probable crude requirements during the winter months.

The March 12th hearing will be the first for the Texas commission since Dec. 12, when it was decided to let its proration orders stand for three months.

When the December hearing was held, the oil industry's economists had fixed 80,000,000 barrels as economic requirements for total gasoline stocks for the country April 1 and to achieve this, called for crude runs to stills at refineries of about 3,100,000 barrels daily average for the period from Oct. 1 to April 1.

For some weeks it has been generally admitted that the gasoline stocks goal of 80,000,000 barrels or even 82,000,000 barrels on April 1 will not be realized and Col. Ernest O. Thompson of the Texas Railroad Commission has been outspoken in his criticism of the oil companies for running too much crude to stills and creating a surplus of gasoline stocks.

'Texas Does Its Part'

He feels that, while commission has done its part to hold down Texas production to current needs, the oil companies by placing their requirements for crude too high, have failed to do their part to correct the situation. He believed that, by inviting the chief executives of the large refining companies to attend the proration hearing in December, wider horizons could be secured for the Texas producers and that the oil executives would learn the problems of the Texas first producers first hand.

Now it is generally believed that gasoline inventories for the country on April 1 will be from 86,000,000 barrels to 87,000,000 barrels and Col. Thompson isn't the only person who would like

ICC Upholds Rails On Gasoline Weight

N. P. N. News Bureau

WASHINGTON, March 6. — Although admitting that gasoline actually averages half a pound less than the estimated weight of 6.6 pounds per gallon now used by the railroads in determining freight rate charges, the Interstate Commerce Commission has entered an order denying complaints and upholding the 6.6 estimate.

The cases have been in the mill for almost exactly two years, the first complaint of ten challenging the weight estimate having been filed by Tankar Gas, Inc., Minneapolis, on March 10, 1937 (N.P.N., March 17, 1937, p. 17). Others were filed by other independent marketers and refiners during the years 1937 and 1938, and the latest to be brought was in October, 1938, by Ben Freeman Oil Gas & Oil Co., Minneapolis, after the first hearings had been held on the earlier cases. For purposes of the decision, all the 6.6 cases were consolidated, and the order dismissing them affects all complaints.

ICC's ruling in the case also covers complaints made by some of the 6.6 complainants against the tariff requirements of railroads that, regardless of temperature, the marked shell gallonage capacity of the tank car shall be used in computing freight charges. This, too, was upheld.

Some of the complaints related to all petroleum products which move at the estimated weight of 6.6 pounds per gallon, and others were confined to gasoline, including natural gasoline. At the hearings, held in Chicago last summer, the allegations were narrowed down to gasoline and kerosine.

Chief burden of all complaints was that the estimated weight of 6.6 pounds per gallon provided by the tariffs for calculat-

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to question the oil company executives on this point.

Where Stocks Are

The Independent Petroleum Assn. of America, an organization of producers which in the past few months has started a broad study of economic conditions in the oil industry, says that, in the East Coast refining district, there are 3,700,000 barrels more gasoline stocks than at a comparable time in 1937, and that in this district 98.5 per cent of the refining capacity is in the hands of 11 companies.

In the Illinois, Indiana and Kentucky refining district, this association reported, latest available figures on gasoline stocks showed 1,600,000 barrels more than in the same time in 1937 and that 81.6 per cent of the refining capacity there is owned by 11 companies.

Fred Van Covern of New York, director of the Department of Statistics of the American Petroleum Institute, who will discuss the general economic position of the oil industry at the March 15th proration hearing in Austin, a few weeks ago stated the trend in gasoline stocks was towards 86,000,000 barrels or more by April 1, in spite of the fact the net effect of the weather so far this winter has been to the advantage of gasoline consumption.

"Even though gasoline inventories are moving toward levels above those economically desirable, actual inventories are less than would have normally resulted from the high rate of runs to stills established, had the weather over the period as a whole been more nearly normal," he stated.

If gasoline stocks are 86,000,000 barrels or more on April 1, the liquidation of those stocks which the industry will be called on to make in the period to Sept. 30, 1939, to achieve the 61,000,000 barrels of stocks considered economically desirable on that date, would be considerably greater than it has made in recent years, he pointed out.

Questions Submitted

Commissioner Thompson, whose invitations to the December meeting were accepted so wholeheartedly by the oil company executives, stated the following questions have been submitted to the executives invited to attend the March 15th hearing.

1. What are your present stocks of gasoline in all forms—finished and unfinished?

2. How does this compare with a year ago, using March 1, 1939, and March 1, 1938?

3. What has been the change in your gasoline stocks since Dec. 1, 1938?

4. What is your present crude oil inventory?

5. What, if any, change has there been in your crude stocks since March 1, 1939, as compared with March 1, 1938?

6. Do you expect to draw from stocks of crude between now and May 1, 1939?

7. What do you expect your gasoline inventory will be on March 31, 1939?

8. What is your policy in reference to inventory, both gasoline and crude, between now and May 1, 1939?

Speculate on Order

It will be recalled that, as a result of the testimony at the Dec. 12th hearing, the Texas commission prepared its first order fixing allowables for more than 30 days at a time. The order retained for the first quarter of the new year the Saturday-Sunday shutdowns and fixed daily allowable for the three months. The oil executives had testified that this type of order would enable them to make more definite plans than was possible on the month-to-month basis.

There is speculation in some quarters, meanwhile, as to what the commission will decide to do after taking the testimony at the March 15th hearing. This speculation is intensified by rumors that some of the commissioners have not been overly pleased at the way refiners have continued to keep crude runs above levels recommended as most desirable to bring gasoline stocks into the best statistical position April 1.

The quarterly meeting of the Interstate Oil Compact Commission, of which Col. Thompson is chairman, has been called to meet March 16 at Austin. The Compact Commissioners will "sit in" on the proration hearing the 15th and have their own meeting the following day to discuss nation-wide economic conditions in the oil industry. Indications are that Arkansas, which recently joined the compact, will be welcomed then as a new member.

Latest Gasoline Stocks Figures

NEW YORK, March 7. — Actual total gasoline stocks in this country as of March 4 were 85,379,000 barrels as reported by the American Petroleum Institute in its weekly report on refining operations. Crude runs to stills were reported for the week ending March 4 as 3,230,000 barrels. The U. S. Bureau of Mines a few days ago estimated 3,149,000 barrels daily of crude oil were needed to meet March demand for motor fuel, thus indicating increases in gasoline stocks by the end of the month if the present rate of crude runs to stills is maintained. Last fall, a stock level of not over 82,000,000 barrels of gasoline was regarded as the "goal" for April 1.

"Modern" In More Than Appearance

New materials, new designs and new methods of construction have brought about a distinct style in service station architecture and, more than that, they have helped make the stations of today more efficient units for the display and merchandising of services and accessories. Their style in itself attracts gallonage.

So new and advanced is this modern service station engineering, not only in the building and modernizing of stations, but also in their heating and lighting and in the equipment that goes into them, that much of the practical experience concerning them is still to be found only in blueprints and office data.

Many oil companies, engineering firms and equipment companies, through years of experiment and study, have worked out these new designs and methods that make the service stations of today far ahead in appearance and efficiency, of those of even a few years ago. Through the co-operation of these companies, NATIONAL PETROLEUM NEWS editorial department has been able to compile much of this information, which will be published in its March 29th Service Station Issue.

Special articles, profusely illustrated with photographs and sketches, will show new designs for large and small stations, in various climates, and discuss their heating, lighting, modern rest rooms and general equipment.

Single copies of this March 29th Service Station Number of NPN will be 50 cents and only a limited number of additional copies will be printed. For extra copies readers are urged to write at once to the Editorial Department, NATIONAL PETROLEUM NEWS, Cleveland.

Coal's 'Horning in' Gas Pipeline Cases Is Blocked by FPC

N. P. N. News Bureau

WASHINGTON, March 6. — Federal Power Commission has assumed jurisdiction over the pending natural gas pipe line applications, and set March 27 for hearings. At the same time, the Commission has denied the petitions of various coal interests to intervene, but provided at the same time that each of these "may participate in the hearing . . . to the extent of introducing relevant and material evidence . . ."

Chief among the natural gas pipeline cases before FPC is the application of Kansas Pipe Line & Gas Co. to build a pipeline from Kansas gas fields to Minnesota iron territory, serving communities along the way. Others are those of Public Service Gas Co. and North Dakota Consumers Gas Co. for certificates to build pipeline systems from Montana fields.

Coal Interests Involved

Among the coal interests whose participation "has not been shown to be necessary" are the National Bituminous Coal Commission, National Coal Assn., American Retail Coal Assn., Northwestern Retail Coal Dealers Assn., United Mine Workers of America, and others.

FPC commissioner Claude L. Draper dissented from the decision denying the coal interests the right to intervene, declaring:

"I am constrained to dissent from the orders of the commission . . . While these petitioners may not be competitors within the meaning of the act, in my opinion they do constitute persons whose participation may be in the public interest, and therefore I believe they should be granted leave to intervene."

Strike Front Quiet—Only 1 Dynamiting Reported in a Week

N. P. N. News Bureau

TULSA, March 6.—The CIO-oil workers' union strike against the Mid-Continent Petroleum Corp. has started on its eleventh week with neither side apparently having budged from its stand regarding re-employment of certain of the workmen on strike.

The corporation's officials have refused to re-employ the approximately 250 strikers discharged by letter for alleged acts of violence and intimidation, and the union's officials have been equally insistent that the men be re-employed before the final peace pact can be reached.

Conferences between representatives of the corporation, the union and the U. S. conciliation commissioner with Gov. Leon C. Phillips at Oklahoma City have failed to bring definite indications that any settlement is near.

The strike front was relatively quiet last week, with only one crude oil pipeline dynamiting and one rock-throwing episode reported. Two windows and a gasoline pump were reported broken at a service station on the Sapulpa road west of the corporation's refinery.

The Oklahoma legislature, meanwhile, has approved another appropriation of $25,000 to maintain the National Guard troops at the strike scene. The troops have been on duty continuously since the second day after the strike was called Dec. 22.

Baltimore Considers Price-Posting Rule

By Telegraph

BALTIMORE, March 7.—Baltimore City Council is considering a city price-posting ordinance which would (1) require posting of prices at all retail outlets, (2) make sale at other than posted prices unlawful, (3) require separate posting of city, state and federal tax and price of product, and (4) require that fractions of cents on price signs be indicated in figures "at least one-half the size of the principal price quoted."

Ordinance also would make it unlawful to sell "any petroleum products other than those indicated by the name, trade mark, brand, symbol or mark any petroleum products except those manufactured or distributed by the manufacturer or distributor marketing such petroleum products under such name etc. . . ."

Octane Posting

Maryland Legislature has before it a bill (HB-411) which would require that octane number of gasoline dispensed be posted on every retail pump in the state. It has been referred to Judiciary Committee.

Bulk Plant Pickets Asking More Margin Enjoined in Detroit

DETROIT, March 4.—A permanent injunction was granted in district court here March 1 against picketing of the Sun Oil Co. bulk plant by a service station union.

The union had been seeking a 4.7 cent margin, and resorted to bulk plant picketing to get dealers to post retail prices insuring this margin.

Since D. C. McCrea, Wayne county prosecutor, invoked the below cost selling provision of the state fair trade act, dealers are reported generally to be posting a price with a 3-cent margin on house brands, making the price seven gallons for $1.05, including the state sales tax.

The 3-cent dealer margin was based on the cost survey conducted by Herbert Taggart, University of Michigan professor, of costs at Detroit stations. A previous cost survey made by retailers showing a minimum margin of 4.4 cents was thrown out in court.

The A. F. of L. service station union is reported still seeking to have members establish a minimum 4.7 cent margin, but few dealers are reported adhering to this margin.

Jersey Tanker Men Vote Against C.I.O.

N. P. N. News Bureau

WASHINGTON, March 6. — Engineers and licensed deck personnel on Standard Oil Co. of New Jersey's 70 tankers and other vessels have voted to be represented by their own union, Jersey Standard Tanker Officers Assn., instead of by a union affiliated with either A. F. of L. or C.I.O.

NPN's Log ON OIL LEGISLATION

Summarized oil legislative information below is based on reports received at Cleveland from Washington and state legislatures, which are deemed reliable although NATIONAL PETROLEUM NEWS assumes no responsibility for accuracy or completeness of this information.

Congress

SENATE BILLS

US SB-1650, Lee, Okla.
To draft private capital in wartime. To Military Affairs Committee.

US SB-1660, Reed, Kans.
To create a transportation planning board, redistribute functions of Interstate Commerce Commission, etc. To Interstate Commerce Committee.

US SB-1661, Hatch and Chavez, N. Mex.
To amend oil and gas leasing law, reducing rentals. To Public Lands Committee.

US SB-1662, Hatch and Chavez, N. Mex.
To extend certain prospecting permits to Dec. 31, 1939.

US SB-1691, Clark, Mo.
Providing for federal pollution control measures. To Commerce Committee.

US S J RES-83, Walsh, Mass.
To establish a naval petroleum reserve off coast of Calif. (Hobbs resolution.) To Public Lands Committee.

US HB-1700, King, Utah.
To repeal the undistributed profits tax. To Finance Committee.

HOUSE BILLS

US HB-4645, Thomas, Tex.
To amend Wage-Hour Act to exempt clerical employes, office help, writers and reporters. To Labor Committee.

US HB-4732, Harness, Ind.
To terminate all reciprocal trade agreements. To Ways and Means Committee.

US H J RES-190, Celler, N. Y.
To make available to federal government facilities of the Council of State Governments. To Judiciary Committee.

State Legislatures

Bills Introduced

DELAWARE

HB-172, Febley.
Makes unlawful to enter state with more than 28 gallons of fuel for operation of motor vehicle. To Revised Statutes Committee.

HB-190, Pepper.
Amending law relating to allocation of funds through state highway department as tax on motor fuel. To Revised Statutes.

HB-187, Benson.
Amending law relating to motor vehicles. Providing an increase in gross weight allowance for vehicles and loads. To Revised Statutes Committee.

SB-130, Clark.
Repeals special fee for motor vehicles propelled by diesel engines. To Buildings and Highways Committee.

GEORGIA

HB-663, Gowen.
Exempts motor fuel used by railroad companies in their operations from motor fuel tax. To Ways and Means Committee.

HB-685, Merritt.
Imposing tax on consumption of natural gas. Provides exemption for certain domestic purposes. To Ways and Means Committee.

INDIANA

SB-330, Johnson.
Imposes tax of 60c per hundred pounds gross weight of trucks. To Roads Committee.

IOWA

HB-587, Hultman.
To exempt oil stations from chain store tax.

HB-416, Committee on Consolidation of State Government.
To change the State Board of Assessment and Review to State Tax Commission and to enlarge its powers and duties. Passed on file.

HB-433, Lucas.
An act to appropriate $25,000 to the person or firm to drill the first producing oil well in Iowa. To Committee on Appropriations.

HB-434, Lucas.
Oil conservation bill (similar to SB-328).

HB-582, Hoegh, Scholz.
To require the Iowa State Highway Commission to pay the gasoline tax on fuel used by said commission. To Committee on Ways and Means.

HB-587, Hultman, et al.
To exempt persons selling petroleum products at retail from Iowa Chain Store Tax Law. To Committee on Commerce and Trade.

H. J. Res. 8, Burma et al.
To create the Iowa State Agricultural and Industrial research council to make research into industrial utilization of agricultural products, including alcohol-gasoline blends. To Committee on Agriculture.

SB-328, Kirketeg.
To vest in the Iowa Commerce Commission power to regulate oil and gasoline well leasing and drilling; providing for prevention of waste, offset drilling etc. To Committee on Mines and Mining.

SB-339, Stewart.
A bill to give retailers of petroleum products a lien on grains, seeds and feeds produced, harvested or processed with fuel sold to the producer. To Committee on Judiciary No. 1.

SB-364, Sjulin and Harvey.
To compel blending of 10 per cent alcohol with all gasoline sold and used for motor fuel in Iowa. To Committee on Motor Vehicles.

SB-365, Cromwell.
To create boiler inspection department within commission of Labor and Industry. Would make mandatory inspection of low pressure heating boilers used in many bulk plants and service stations and would also apply to automatic air compressors. To Committee on Labor.

SB-369, Stewart.
To prohibit discrimination or difference in price of any commodity —quality and transportation costs considered — between Iowa Communities. To Committee on Judiciary No. 1.

SB-379, Committee on Consolidation of State Government.
To create a state department of public safety and to provide the centralization of all state police officers and to include under the department of public safety the motor

patrol, the inspection of kerosine, motor vehicle fuels and oil and gasoline pumps and the enforcement of the laws regulating motor vehicle carriers. Passed on file.

SB-329, Kirketeg.
Grants $25,000 for first producing oil well drilled in state. Defines producing well as one averaging 100 barrels of crude per day for 30 consecutive days.

MARYLAND

HB-411, Foley.
To require octane number of gasoline to be posted on each dispensing pump. Judiciary Committee.

MINNESOTA

HB-686 and SB-477.
Prohibits the transportation of more than 2000 gallons of inflammable liquids on state highways. To Road Committee.

MISSOURI

SB-295, Bradley.
Requires the measurement of all gasoline and motor fuel made by and through meters; makes any other method unlawful.

NEVADA

SB-83, Winters.
Placing tax of 5c per gallon on diesel oil used in automobiles. To Taxation Committee.

NEW JERSEY

HB-263, Donahue.
Exempts state and agencies from payment of motor fuel tax.

NEW YORK

HB-1363, Stuart.
Provides that leases or grants for taking petroleum or natural gas shall contain provision that consideration, in addition to acreage rental, shall be prorata share not less than 12.5% of products taken. Shallow wells less than 2000 feet are excepted. To Judiciary Committee.

HB-1322, Ehrlich.
Posting of prices of motor fuels and oils. Prohibits sales at other than posted prices.

SB-998, Corning.
Statements of pipeline corporations showing quantity of commodities on hand, received and delivered and credit balances be made semi-annually instead monthly. To Judiciary Committee.

SB-1100, Esquiral.
Prohibits operation of trucks on highways outside municipalities from noon Saturday to 6 a.m. Monday. Also on holidays.

NORTH CAROLINA

HB-13, Revenue Bill.
Gasoline distributors tax raised and amended $50 for first 100,000 gallons sold. $25 for each additional 50,000 gallons. Places graduated tax on gasoline pumps. To Joint Finance Committee. Administration Measure.

HB-509.
Provides Sunday closing for liquor and filling stations.

OHIO

SB-224, Pollock.
'Baby Patman Law,' would require uniform prices, but permit meeting competition.

SB-225, Pollock.
Requires posting of motor fuel prices, regulates size of signs, prohibits rebates and premiums.

SB-226, Pollock.
Amends Ohio fair trade law (permitting resale price maintenance contracts) to apply its provisions to vending equipment such as gasoline pumps.

HB-361, Eirick.
To establish a system of highway planning for the state.

OKLAHOMA

HB-448, Gillespie.
Relating to motor carriers.

HB-450, Worthington.
Submitting chain store tax bill to vote of people.

SB-180, Thompson.
Relating to pipeline companies transporting oil.

OREGON

SB-464, Roads Committee.
Provides definitions and terms relating to regulation of highway traffic.

PENNSYLVANIA

HB-316.
Amendment to continue emergency gasoline tax. Administration Bill.

HB-322, Kline.
Repeals act imposing tax on gasoline pumps. Recommended by Governor in budget message.

SB-101, Dent.
Provides payment of 0.75c of gasoline tax to counties and 0.75c to municipalities, based on population. To Finance Committee.

SB-107, Wolfenden.
$34,000,000 of motor vehicle fund to municipalities for street and highway improvement. To Finance Committee.

TENNESSEE

SB-909.
To levy privilege tax on liquid fuels.

HB-1354, Odell and SB-995, Mosby.
Amends revenue bills of 1937 relating to tax on filling stations.

TEXAS

HB-792, Felty.
Amends statutes to allow railroad commission to regulate storage, handling and transportation of butane and other liquefied petroleum gases. To Oil and Gas Mining Committee.

VERMONT

HB-322, Highways Bridges Committee.
Raises state gasoline tax per gallon.

WASHINGTON

HB-545, Callison.
Raise sales tax from 2 to 3 per cent. To Revenue and Taxation Committee.

HB-567, Smith.
Requires liquid petroleum fuels be blended with mixture of alcohol manufactured from surplus Washington products. To Commerce and Manufacturing Committee.

WEST VIRGINIA

HB-108.
Amends sales tax to exempt those in manufacturing, transportation or production of natural resources.

HB-442, McClung and SB-274, Robertson.
Taxing petroleum products. To Finance Committee in House. To Judiciary Committee in Senate.

Changed Status of State Bills

ARIZONA

HB-260. Inflammable liquids and gases. Reported favorably in House.

HB-113. Oil and gas leases by state institutions. Passed House.

ARKANSAS

HB-35. Chain store tax, exempting oil. Killed in House.

SB-60. Adjusts gasoline tax on state lines. Passed. Emergency clause failed. Notice of reconsideration given in House.

SB-317. Protection of land, lease and royalty owners. Withdrawn from committee in House. Recommitted to Oil and Gas Committee in House.

SB-95. Re-enacts present sales tax. Oil exempt. Passed Senate.

SB-386. Permits commissioner to draw up specifications for tank trucks. Withdrawn from committee in Senate. Recommitted to Senate Committee on Revenue and Taxation.

CONNECTICUT

HB-1394. Gasoline price sign regulations. Withdrawn from Committee in House. Recommitted to Motor Vehicle Committee in House.

SB-800. Requiring certificate of approval from local authority to build gasoline station. Passed House.

GEORGIA

HB-573. Octane rating of motor fuels. Favorably reported in House.

SB-101. Allowing leasing of oil lands without license. Tabled in Senate.

IDAHO

HB-400. Making gasoline corporations public utilities. Withdrawn in House.

KANSAS

SB-185. Corporation commission to control crude production. Reported with amendment in Senate.

HB-404. Providing for two-year extension of Kansas's participation in Interstate Oil Compact. Passed House.

MASSACHUSETTS

HB-1327. Extra man on trucks of 5 tons or over. Killed in House.

MINNESOTA

HB-464. Extending 4c gasoline tax to 1941 reported favorably in House.

SB-23. Decrease gasoline tax from 4 to 3c per gallon. Reported unfavorably in Senate.

MISSOURI

HB-14. Increasing gasoline tax to 4c, cutting registration fees. Unfavorably reported in House.

MONTANA

HB-68. Two operators on trucks of 10 tons or over. Killed.

NEBRASKA

No. 133. Gasoline price posting bill favorably reported by committee.

NEW JERSEY

SB-152. Provides for revocation of gasoline dealer licenses. Favorably reported in Senate.

NEW MEXICO

HB-249. Procedure for refund of gasoline tax. Passed Senate.

SB-14. Defers registration to March 1. Substitute reported favorably in Senate.

HB-76. Authorizing collection of tax on gasoline stored in state. Reported with amendment in House.

HB-254. Regulating the sale of gasoline and providing for price posting. Passed House.

SB-101. Gives counties authority to levy 1c gasoline tax. Reported without recommendation in Senate.

SB-107. Providing that nonratable takings of oil and gas constitute waste. Killed in Senate.

NEW YORK

HB-492. Prohibiting sale of motor fuel lacking minimum specifications. Passed House to general laws Committee in Senate.

NORTH DAKOTA

HB-70. Purchase of gasoline for agriculture and industrial purposes without payment of gasoline tax. Licenses buyers and sellers. Passed both Houses.

OKLAHOMA

SB-23. Exempting trailers and semi-trailers from payment of auto license tax. Killed.

SB-3, Thompson. Abolishing gasoline inspectors. Killed.

SB-39. Eliminates 2% gasoline tax allowance. Passed Senate. To Revenue and Taxation Committee in House.

SB-147, Mauk. Providing for registration of trade marks. Passed Senate.

HB-485, Basole. Levying tax on certain motor fuel, other than gasoline, used in propulsion of vehicles on highways.

OREGON

HB-189. Permits assessment of additional properties of pipeline companies. Passed Senate.

SB-420. Exempts distributors of gasoline from tax when exported by motor vehicle. Reported favorably in House.

OHIO

SB-243. Exempts from public utility classification all petroleum corporations. Reported favorably in Senate.

SOUTH DAKOTA

HB-56. Limiting trucks to 1500 gallons of inflammables. Killed in Senate.

TENNESSEE

HB-829. Gasoline owned in violation of tax laws may be seized. Passed Senate.

UTAH

HB-195. Gasoline price posting law. Tabled in House.

HB-195. Prohibits gasoline price discrimination. Passed House. To Revenue Committee in Senate.

HB-235. Establishes new standards and grades for motor fuel. Passed House. To Banking Committee in Senate.

VERMONT

HB-177. 10-hour day for truck drivers. Killed in House.

WASHINGTON

SB-227. Quarter-cent tax on petroleum products. Passed in Senate.

SB-169. Establishes oil and gas control to prevent waste and overproduction. Passed with amendment in Senate. To Mines and Mining Committee in House.

WEST VIRGINIA

SB-208. To increase chain-store tax and include "Louisiana Plan"; filling stations and bulk plants not exempted. Favorably reported by Senate Finance Committee.

HB-263. Committee's substitute bill, providing for regulation of outdoor advertising and $1 annual tax on signs. Passed House and now in Senate Judiciary Committee.

HB-107. Extends 1c emergency gasoline tax for 2 years. Passed both Houses.

BILLS APPROVED

IDAHO
SB-108. Transfers to department of public works duty of testing oil. Approved by Governor.

MONTANA
HB-73. Gasoline tax refunds. Approved by Governor.

SOUTH DAKOTA
SB-131. Defines tractor fuel, regulates sale and provides exemptions. Approved by Governor.

VERMONT
HB-35. State Highway Board jurisdiction over highways. Approved by Governor.

Control of Refining To 'Prevent Waste' Proposed in Texas

N. P. N. News Bureau

TULSA, March 6. — Public hearing by the oil and gas committee of the Texas House on the refinery control bill, originally scheduled for March 1, has been postponed until March 15.

Postponement was caused by the Texas legislature recessing so its members could participate in the numerous observances of that state's independence day.

The proposed bill provides for the extension of the present conservation program for another two years, with the railroad commission being given the power to regulate refineries on the theory that the manufacture of products in excess of market demand constitutes physical waste.

Railroad Commissioner G. A. Sadler has expressed the desire that the proposed bill be enacted into law on the grounds that it will give the commission authority to prevent what he terms some of the evils that now exist.

"We can stop refineries from processing illegally produced oil, for one thing," Sadler said.

It has been pointed out, on the other hand, that the proposed bill would only amend the present statute and that the railroad commission already controls oil going to the refineries and products produced by them.

Decision Against Hearings On Connally Law Protested

N. P. N. News Bureau

WASHINGTON, March 7. — A "new and impartial committee" for consideration of the bill (Senate 1302) to make permanent the Connally "hot" oil law was asked of Chairman Harrison of Senate Finance Committee today by Paul E. Hadlick, secretary of National Oil Marketers Assn.

In a letter to Sen. Harrison, Hadlick asked that the committee reject the subcommittee's report recommending that the bill be reported favorably without holding hearings.

The present subcommittee, Hadlick added, has "indicated its unwillingness to even listen to arguments in opposition to the bill despite developments in the past two years."

Two years ago, Hadlick led an unsuccessful fight to prevent extension of the "hot" oil law.

Passage of a federal-state-industry bill for co-operative efforts to abate stream pollution seems assured, following hearings last week. Only one of 13 witnesses appearing expressed opposition to the co-operative type of bill. He was Kenneth A. Reid, general manager of the Izaak Walton League, who urged a federal-enforcement bill.

Pollution Bill Hearings

Two representatives of the petroleum industry testified—Russell B. Brown, general counsel of the Independent Petroleum Assn. of America, and Mrs. Mary C. Mallon, representing the National Petroleum Assn., Western Petroleum Refiners Assn., and the Pennsylvania Grade Crude Oil Assn. Both oil witnesses told the House Rivers and Harbors Committee that they favored the co-operative type of bill.

Brown was opposed to the bill of Rep. Mundt, S. Dak., because it includes, he said, "the drastic provisions which were in the Lonergan Bill offered during the previous Congress."

Oil's WASHINGTON CALENDAR

Below are given the dates and notices of hearings, proceedings, new legislation, etc., which are of importance to oil companies. Notice is also given of regulations issued, interpretations of laws, new publications, etc., with information as to how readers may secure official copies of these.

HEARINGS:

Interstate Commerce Commission:

Further hearings on question of need for safety regulation for privately-operated trucks:

March 13—Railroad Commission, Los Angeles, Cal.

March 17—Hotel Fontenelle, Omaha, Neb.

March 20—Hotel Peabody, Memphis, Tenn.

March 7—Proposed to cut less-than-carload freight rates on petroleum products in southern states—protested by common carrier truckers.

March 20—Railroad proposal to cut less-than-carload freight rates on petroleum products in southern states.

Federal Power Commission:

March 27 — FPC assumes jurisdiction over Kansas Pipe Line & Gas Co. project (construction of natural gas pipeline in Kans., Nebr., S. D., N. D. and Minn.) and orders hearing on company's application to build the pipeline. (Coal interests petition to intervene denied but are allowed to participate in hearing).

April 17—Hearing on application of General Gas Pipe Line Co. of Indiana for certificate of public convenience and necessity to build natural gas pipeline from Ky. to Ind.

AUCTION:

General Land Office

March 14—Sale of 240 acres in Hamilton Dome Field near Thermopolis, Wyo. to be held in Cheyenne, Wyo.

CONFERENCE

Bureau of Standards

March 15 — Manufacturers, distributors and installing contractors of mechanical draft oil burners to discuss new proposed commercial standard of this type burner which was submitted by Oil Burner Industry Standards Committee in February.

Commerce Department

March 14 and 15 — Industry representatives confer with Census Bureau officials about 1940 Census of Distribution.

Telegraph Bulletin

LOS ANGELES, March 7. — With renewed enforcement of state's "actual" price posting law as a result of recent favorable court decision, three Los Angeles station operators were arrested late today for alleged under-canopy price cutting. One pleaded guilty, two not guilty.

Independent refiners indicated that now, with actual enforcement, they are inclined to stipulate resale prices one cent below majors on both regular and Ethyl grades.

Fight Proration Law in Illinois

By Teletype

CHICAGO, March 7. — Negotiations between organized producers in Illinois holding opposing proration views, to work out a conservation program for the development of the state's new oil fields, resulted in the formation last week of a new association which is unalterably opposed to any proration legislation at this time.

Some members of the new association belong to the association of operators on the western side of the new Illinois oil basin organized last fall to oppose proration.

Conferences Held

Illinois, with its rising crude output taking some of the market at central west refineries from Mid-Continent crude, has no proration law, and efforts have been made to introduce such a measure while the legislature is in regular session. No such legislation has been introduced yet, although a conservation bill has been prepared, sponsored by the Illinois-Indiana Petroleum Ass'n.

This association's legislative committee has been conferring with representatives of the Illinois Independent Oil Operators and Royalty Owners Assn., which was organized last fall to oppose proration. Recent negotiations have been to the end of working out a program on which both factions could agree.

Then some members of the Illinois Independent association, opposed to any proration at this time, broke away and at a meeting March 1 in Vandalia organized the Petroleum Assn. of Illinois. R. A. Hose of Quincy, of Oils, Inc., is president; S. D. Jarvis of St. Elmo, producer in the Beecher City field, is vice-president, and Frank T. Egan of Centralia, is secretary.

South Dakota Kills 1500-Gallon Limit

Telegraph Bulletin

COLUMBUS, O., March 7. — Ohio's two-men-on-a-truck bill was "indefinitely postponed" by committee vote tonight.

N. P. N. News Bureau

CLEVELAND, March 7. — As Iowa jobbers and oil truckers organized for battle against the bill to limit tank trucks to 1200 gallons on highways—already passed by one branch of the Hawkeye State legislature — the South Dakota senate killed a 1500-gallon limit bill which had got by the lower house in that state.

Minnesota has a 2000-gallon limit bill before the House roads committee.

Hearings on the two-men-on-a-truck bill in Ohio brought a large turnout of oil men to oppose this railroad-sponsored measure. It was pointed out that such a bill would "ruin" independent marketers of the state. No committee action has been taken yet.

Bills to regulate retail marketing were introduced in Maryland, Oklahoma, Ohio and several other states.

(See NPN's Log on Oil Legislation, Pages 7-8 for summaries of these and other bills.)

Production Program For A.P.I. Meeting Includes 15 Papers

NEW YORK, March 6.—Thirteen papers devoted to various phases of production practice are scheduled in the preliminary program for the spring meeting of the southwestern district Division of Production of the American Petroleum Institute, meeting at the Plaza Hotel, San Antonio, Tex., March 16 and 17.

W. R. Boyd, Jr., executive vice-president of the Institute, New York, will address the meeting the afternoon of the first day.

Among the papers to be presented will be the following:

"Petroleum Engineering Education and Its Relation to the Petroleum Industry", by Harold Vance, A. & M. College of Texas, College Station, Tex.

"Appraisal of Oil Properties", by T. A. Hall, First National Bank in Dallas, Texas.

"The Gasoline Tax Situation in Texas", by Datus E. Proper, executive vice-president, Texas Good Roads Assn., San Antonio.

Other papers will discuss well spacing, well completion data, pipe standards, production practice in southwest Texas, and condensate wells.

A stag entertainment for the evening of the first day and a dinner dance the second day have been planned as entertainment.

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Iowa Jobbers Would Use One Evil to Fight Another

By WARREN C. PLATT, Editor

Oil's vast trucking transportation system as well as the trucks of its big gasoline customers, is under the most serious attack this winter in history. Hardly a state legislature is in session that is not considering proposed regulations to hamper and restrict truck efficiency. Then at Washington is constant pressure to extend federal government control from interstate common carrier trucks to privately owned and operated trucks.

The strong force behind all this, of course, is the railroads. For years they closed their eyes and minds to pleas of the oil industry to recognize this growing competition and to reduce their oil rates to a competitive level. But the railroad men seemed to feel that the Interstate Commerce Commission and the federal government would protect them, come what may.

The tremendous growth of truck transportation the past ten years finally has aroused them and their associated railroad brotherhoods. They are driving desperately to get control of the oil and all trucks and set up such regulations as will materially restrict their efficiency, in fact will stop their growth and even reduce trucking considerably.

In this attack on trucking the railroad interests are seeking to place death throttling regulations on oil industry trucking.

In the past few weeks, bills to limit drastically the capacity of tank trucks have been pushed in a number of states in an effort to drive off the road the big transport trucks hauling 4000 gallons and more which have so greatly increased the efficiency of the oil industry's operations. In Iowa, for example, one branch of the legislature has passed a bill restricting tank trucks on highways to 1200 gallons.

The arguments against these big tank trucks are as to their alleged "hazard." But in Iowa the railroad's attack on trucks happens to fit into a situation that is peculiar to the oil industry—gasoline tax evasion.

Many Iowa oil men, led by Albert Stoessel, independent oil jobber of Ottumwa, and chairman of the oil industry's state tax evasion committee, are supporting the proposal to limit truck tanks to 1200 gallons because, they point out, they have been unable to interest state officials in proper enforcement of gasoline tax collecting, with the result that tax evasion by means of big transport trucks has ruined their markets along the western and southern borders of the state. Because of the increasing efficiency of truck transportation, they charge this gasoline tax evading is creeping up to the central and even northern part of the state with most unprofitable results to the oil jobbers.

While Iowa officials have denied there is any amount of gasoline tax dodging, the oil men give many illustrations from their own experience of what quite obviously appear to be tax dodging.

Stoessel says that not long ago he was offered the contents of a big truck tank which had broken down near his plant, at a ridiculously low price. The truck's papers showed it was headed for "Akron, Ohio" and loaded with "naphtha" for a rubber company. The truck driver assured Stoessel it was perfectly good gasoline. He seemed to be in a terrible sweat to get rid of it. Iowa jobbers tell of many low offers by some gasoline truckers, below any prices they can get from any other sources.

One of the great curses of the gasoline tax has been the ease with which it could be bucked and the refusal of government officials to recognize that their own slipshod tax collecting methods not only costs the state money but that they cost the industry many millions in unfairly lowered prices.

Iowa has a new Republican administration that has not yet awakened to the tremendous evils of the state's failure in collecting gasoline taxes. As an "economy" measure the previous administration, after doing a good job, reduced its tax enforcing organization to two men. Since this time Iowa oil men say gasoline tax dodging has grown to great proportions.

Those supporting limitation of truck tank's capacities say that operating figures show that the driver of a 1200 gallon truck cannot make any money hauling it 400 or 500 miles from Kansas refineries and then taking it back empty, even beating all of the tax. However, with the larger trucks he can make big money trading off the 3 or 4 cents a gallon tax.

However, the oil industry should not let one evil grow up, for the sake of possibly eliminating another. Gasoline tax evasion should be attacked directly and vigorously. Iowa officials should be yanked out of their lethargy or blindness and made to put on enough men to prevent tax evasion, regardless of their economy program. One of these days this oil industry may, for such backward officials, make the point that it will not pay over the taxes until the officials have discharged their legal responsibility. With the whole industry boycotting a state and paying the funds into a trust account, the resulting publicity would certainly drive home to state officials the necessity of their obeying the law and collecting the tax.

In Iowa gasoline tax collecting should be enforced at once and Stoessel says that is all he is after. Then the industry should oppose the limitation of truck sizes, for once that idea starts there will be no end to it. The railroads would get us down to lugging gasoline in five-gallon cans if we are not careful. Whatever legislation is necessary to provide the maximum of reasonable safety on the highways the oil industry will promote, but the industry should beware of the "expert" opinions on this subject of the railroads and their associates, the brotherhoods of their employes. They are hardly fair, let alone competent, judges of truck safety, particularly as they have kept so far away from trucking all their lives.

With all the clamor over the country to use legislative

and other government power for the social and economic aims of various interested groups, it is hard for persons to keep their feet on the ground. But if any business is going to survive this wave of ignorant and vicious "reforming" it must think clearly and act fearlessly on behalf of, rather than against, efficient economic trends. If those trends seem to run momentarily against the interest of any particular persons, the main and eventual evil must be seen clearly and avoided.

We have reference to the undoubted fact that some persons in the oil industry may view these proposed truck limitations to the end of making long distance trucking of gasoline impossible, as a means toward preventing distribution direct to service stations from refineries and marine and pipeline terminals. But that trend has been on the way for a long time and one might as well try to use the proverbial broom against the tide as try and stop it with such truck legislation.

The industry will have to adjust itself as quickly as possible to the change. One way for jobbers to meet this by-passing of their bulk stations is to get back into the direct operation of their service stations, be merchants in fact and build up their strong outlets into real profit makers. That is one reason why NATIONAL PETROLEUM NEWS has developd so much discussion in the industry on this subject of late. For more comment on oil companies taking back their stations see the feature section (Page 30) of this and subsequent issues.

At all events, the oil industry has two evils to defeat, one the old monster of tax evasion and the other the efforts of the railroads to throttle all truck competition, not just the trucks of the oil companies but the trucks of the oil company customers.

Railroads Drive for Expositions

The railroads are making an aggressive drive for automobile owners to visit the two world's fairs this year by train and to "forget the family car—and its care."

So far, it would appear the oil companies are only advertising the fairs and not the use of gasoline and oil to get to them. Yet the big oil companies have large investments in each fair in joint petroleum industry exhibits. But they have far larger investments in their bulk plants and service stations enroute to either New York or San Francisco.

A good many oil men, probably, are not particularly interested in developing business for the fairs. They undoubtedly would prefer to have their old, and some new, customers, return to the cool spots of the north woods and lakes this summer and burn gasoline bought at their stations, instead of going to either the east or west coasts by either train or car.

However, regardless of the oil companies' interest in the summer resorts of the north, particularly in the middle west, there will be many visitors to the fairs.

But unless something is done pretty soon, a good many motorists are liable to get firmly fixed in their minds the thought the railroads are spreading of "New York's dense traffic, subways, gigantic bridges and confusion", as the Pennsylvania Railroad undertakes to describe the motorist's prospect in a recent full page advertisement in national magazines.

"Go in comfort," say the railroads, and they are making low fares for both expositions.

There undoubtedly are a great many millions of gasoline gallonage and quarts of oil at stake in this battle, if the oil industry will go after the business.—W.C.P.

Business Crosses Fingers As FDR Moves for 'Peace'

By G. T. KELLOGG
N. P. N. News Bureau

WASHINGTON, March 6. — Not unlike the drunkard's wife who has listened to promises all her life, only to see them broken, business is approaching the once-more outstretched hand of the New Deal with fingers crossed and tongue in cheek.

However, desperate sincerity is seen in this new business appeasement move on the part of the Roosevelt Administration by most Washington observers.

Looking to 1940, when Harry Hopkins is slated to be the New Deal's entry in the Presidential Stakes, the administration foresees that it can't win the nomination of its own party unless there is harmony in the Democratic ranks—and many business men are Democrats.

Looking still farther, there can be no re-election, even after nomination, unless the "pee-pul" are contented; and they won't be unless there is a semblance of prosperity, which is impossible of achievement without the co-operation of government and business.

So it may be expected that the administration may go even further into the business camp in its effort to restore prosperity—at least until 1940, when another roundhouse swing at business may be let loose if the New Deal is returned to power, put back in the drivers seat.

Reflective of the pulled punches which are a result of the new business appeasement move are:

1. The fact that nothing has been done to the oil, gas, coal and water power industries as a result of the National Resources Committee's "energy report" recommending federal control.

2. The bogging down of the assault upon industry that was to have featured the O'Mahoney monopoly committee's investigation.

Resources Temporarily Safe

As long as Congress, and the administration, are in their current mood, no pressure is expected to come from New Deal-sponsored sources for further federal control of the resources industries. There is no doubt but that the Connally 'hot' oil act will be renewed, but any move for strict federal oil control is not foreseen soon.

The O'Mahoney investigation is already seen as a little less in the role of business sniper that it started out to be. Doubtless, this is due to the New Deal's new attitude toward business. The monopoly committee still hasn't had its fling at the oil industry—and probably will not let the opportunity pass—but "orders from above" may direct that the report show the industry in a more favorable light than some of the "trust busters" would like.

Thurman Arnold On Way Out?

In this connection, it is being rumored hereabout that Thurman Arnold, anti-trust chief and one of business' most persistent snipers, is on the way out, and probably will not be around Washington—in his present job, at least—when June 1 arrives.

From the taxation angle, likewise, the New Deal is likely to ease up. It is apparent from the letters of Chairmen Harrison (Senate Finance Committee) and Doughton (House Ways and Means Committee) to Secretary Morgenthau that they want the Treasury Department to reveal its tax plans as soon as possible, so that business may know what to expect.

There is talk of a complete abandonment of the undistributed profits levy, almost eliminated at the last session, and of other tax overtures toward business generally. But business will believe these when it sees them.

It is felt certain that there will be no move on the part of the administration for any modification of the depletion allowance now granted oil and mining companies. Two years ago the President characterized this as one of the most "glaring loopholes" in the federal tax structure, but now, if the "desperate sincerity" of the New Deal is as genuine as believed, it will forget everything it said on this subject.

Cohen-Corcoran Still About

But there is always the possibility—and this is why observers say business has its tongue in its cheek—that the Corcorans and the Cohens may swerve the White House from its path of appeasement.

The Corcoran-Cohen argument might be that business support for the administration is lost beyond redemption, and that any move to appease business is as vain as Canute's command to the tides. Meanwhile, the New Deal might lose its left-wing support, leaving it without cohorts either to right or left.

Iowa Jobbers Go On Record On Legislative Proposals

By E. L. BARRINGER
N.P.N. Staff Writer

DES MOINES, March 4.—The Iowa Independent Oil Jobbers' Assn. took a stand against alcohol-gasoline, through adoption of a resolution during its annual convention here this week opposing a bill now in the Iowa House that would require 10 per cent alcohol from Iowa farm products in Iowa's motor fuel. . The proposed legislation was declared not to be to the benefit of the farmer, and in the consensus of the association "will prove only a hardship upon the farmer by increasing his own cost of operation."

Other resolutions on state issues were in opposition to the proposed legislation to limit truck transport loads to 1200 gallons; in favor of the House bill to reduce the annual gasoline pump license fee from $3 to $1, and in favor of the proposed amendment to the Iowa fair trade act that would require an offender proving whose price he was meeting when he reduced his own price.

In national affairs the resolutions opposed continuation of the Connally "hot" oil act, favored the Gillette and Harrington divorcement bills, and opposed any tax on fuel oil.

Fuel oil taxation "will prove a hardship on many consumers," the resolution stated, "particularly old people, that have spent money for oil burners, depriving them of money that should go for food."

The Iowa association, approaching its second anniversary, selected Gerhard Goplerud of Osage, the Goplerud Oil Co., as president to succeed Ernest Peter of Cresco, the Northern Iowa Oil Co., its first president. All directors are elected annually, representing districts, and five members were re-elected and seven new jobbers placed on the board.

Before settling down to discuss resolutions and elect officials the association listened to a speaking program on marketing issues of the day. In spite of the blizzard that struck Iowa just ahead of the convention attendance was almost as large as at the meeting a year ago.

Farm Tractor Market

H. L. Nixon of Kansas City, assistant division manager of the Ethyl Gasoline Corp., was the first speaker, discussing the Iowa tractor market.

Iowa has 8 per cent of all farm tractors in the country, Nixon related, the average tractor in a year consuming about 1400 gallons of fuel, 30 gallons of lubricating oil, 10 gallons of gear lubricant, and four spark plugs.

Salesmen for one tractor manufacturer are claiming leaded gasoline ruins the valves, Nixon continued. It can be definitely proved that gasoline will not cause valve trouble, he said, and in six out of ten cases this trouble is eliminated by proper spark plugs. Nixon advised jobbers encountering this difficulty to see that the tractor uses cold plugs, and that the manifold heat control is set to cold.

A need for salesmanship in the oil marketing business was urged by E. J. Gallmeyer of Fort Wayne, Ind., the Wayne Pump Co., who pointed out that business men must learn to do business in hard times because good times are too rare.

The Jobbers' Job

The jobbers part in management at the service station pump island Gallmeyer said is getting "better than average returns from average men." Business lacks spirit, he continued, urging "selection of personnel for the islands who have a spring in their step, a glint in their eye, and honey on their tongue."

Jobbers were urged to give personal attention to their best customers, those whom they know have money to spend on their automobiles and to see that these customers are properly approached and "with honey on your tongue."

Jobbers were urged to quit gossiping and knocking their neighbors, and to put color into their business and to let their personality shine.

The question of a consent decree in a criminal case, in reference to the nolo contendere pleas of the second Madison oil case and treble damage claims, was discussed by Ernest A. Michel of Minneapolis, of the legal firm of Davis, Michel, Yeager & McGinley, which has brought two jobber treble damage cases.

The Clayton amendment to the anti-trust law makes the final judgment or decree prima facie evidence in a treble damage suit, Michel related, pointing out that this does not apply to consent judgments before evidence is introduced in civil cases. The Madison cases were criminal, he continued, stating that, while major oil companies claim that the nolo contendere plea was a consent decree, there are others who deem there is no such thing as a consent judgment in a criminal case.

Michel then cited correspondence with Thurman Arnold, assistant federal attorney-general, and Senator Borah, substantiating his contention on this point. (In the Twin Ports Oil Co. treble damage suit the U. S. Court at Minneapolis held the nolo contendere pleas did not constitute evidence of a conspiracy and ordered reference to the pleas in the second Madison case stricken from the treble damage suit complaint.)

Retailer Talks

The pipeline issue was discussed by L. A. Hartley of Kansas City, executive secretary of the Petroleum Retailers Assn., who claimed major companies last year had an unearned bookkeeping profit of $404,997,120 resulting from the gasoline pipeline movement of the major's 15 billion gallons out of the country's total of 19 billion gallons consumption of motor fuel.

The major companies, he charged, fix the wholesale price, then get fair trade laws to fix retail prices and "then where are you?"

In Kansas City a public relations committee has been formed, Hartley related, charging it was impossible to get the marketing situation story in the trade press, or in the legislatures, so now the story is being taken to the consumer.

The only way to get at monopoly, Hartley said, "is getting the consumer to understand what is being done to him."

Hartley expressed his belief in the profit system, charging that to make the system work it is necessary "to break the oil monopoly," and that "we need rabble rousers if we are going to save the profit system."

Warren C. Platt of Cleveland, publisher of the NATIONAL PETROLEUM NEWS, discussed factors in "Profits," and the B. F. Goodrich Co. exhibited its service station selling picture "You're The Doctor."

'Can't Block Transportation Progress' Says Gienapp, Urging Truck Bill Fight

CLEVELAND, March 4. — Prior to meeting of the Iowa Independent Oil Jobbers' Ass'n., the past week in Des Moines, at which action was taken against the Iowa bill to limit drastically tank truck capacities, A. C. Gienapp, association secretary, issued a bulletin explaining his opposition to the bill. Statement of his argument, follows:

"The proponents of the Bill claim there is too much gasoline tax evasion going on, due to no regulatory measures on transports transporting gasoline from out of the State into the State of Iowa. It is this avenue they seek to plug up. Naturally, this office is for everything that will help the State collect all of their just revenue. If it is an established fact, there is gas tax evasion, and our present laws are inadequate, then, by all means, enact measures that will protect the State as well as the honest marketer.

"In studying Senate File 184, we believe, this Act will not solve the problem. Suppose a transporter sets up a bulk plant in South Sioux City, Omaha, Nebraska City or just over the line and then reloads into smaller trucks making the deliveries as formerly. Another way, having no bulk plants at all and reload from the transport itself, using the transport as a bulk plant. You can readily see it will not solve the difficulty.

"To our way of reasoning and the information we have, the Bill has a little odor to it, while in disguise, it has all the earmarks of the railroads and some of the major oil companies with it, pushing the Bill, knowing some of the jobbers are contemplating barging gasoline up the river and transporting it from there to their own and other distributing points.

"We do not believe we should impede progress on methods of transportation with the ultimate result higher costs to the consumer, in order to protect the railroads and even the pipelines. This is undemocratic and monopolistic. Who knows, maybe some day in the not too distant future you may have to transport gasoline in order to be competitive, and certainly you wouldn't want transports shackled to the point where you will be compelled to go out of business.

"If gas tax evasion is going on as a result of transports, let's have a port of entry bill to check every transport that comes into the State, knowing definitely the State will receive their just tax on that particular gasoline so transported. The State Highway Patrol could handle this job very nicely without a great deal of additional expense to the State. We don't believe in cutting down the capacities of the transports, using coercion for you to ship via rail."

Panhandle Refining Takes on 'Sovereign'

WICHITA, Kans., March 4.—Panhandle Refining Co., Wichita Falls, Tex., has taken out a license for "Sovereign Service," according to an announcement by C. R. Sullivan, manager of the Independent Refiners Service Corp., administrators of the Sovereign plan. This brings to eight the number of participating refiners, Yale Oil Corp., Billings, Mont., having been licensed last month.

Panhandle operates refineries at Wichita Falls, Lueders, and Kings Mill, all in Texas; the first two mentioned have cracking facilities and all have lead-blending units.

Iowa Bill to Limit Tank Trucks Divides Jobbers

Association Fights 1200-Gallon Limit Sought by Some to Block 'Tax Evasion'

DES MOINES, March 4.—Opposition to the Iowa bill to limit transport loads to 1200 gallons was taking shape here the past week with organization of a state association of petroleum transporters and the Iowa Independent Oil Jobbers' Ass'n. in annual convention adopting a resolution opposing the measure.

Undercurrents of the proposed legislation include charges of gasoline tax evasion, the demoralization of markets, and the railroads fighting truck transportation.

The bill would limit tank truck capacities in cities and towns to 2000 gallons, elsewhere in the state to 1200 gallons. Bill passed the state and now is in the House roads and highways committee.

The Petroleum Transporters Assn. of Iowa was organized here March 2 to fight the bill. A general truck operators association appeared against the measure during the senate committee hearing, but this is the first organization of the petroleum carriers. Peter A. Jessen, of Exira, the Nelson & Jessen Oil Co., was elected president, and John Ruan, Des Moines transporter, secretary.

Oil jobbers adopted the resolution opposing the bill after a brisk debate by a 3 to 1 vote. Jobbers from northwestern Iowa raising the gasoline tax evasion issue were met with the argument that, even with such a law, gasoline could still be transported in bulk to the state line on the Nebraska side and then the transports enter Iowa with a series of 1200-gallon loads.

On the question of market demoralization, it was pointed out that areas in the state not served by transports have price disturbances as well points served by transports.

The real issue, jobbers decided, lies in the fight of the railroads against truck transportation, and in keeping competitive transportation available to the jobber.

Stoessel Backs Bill

A staunch supporter of the 1200-gallon bill is Albert Stoessel, of Ottumwa, Stoessel Oil Works, and chairman of the Iowa Gasoline Tax Evasion Committee, on the grounds, primarily, of the tax evasion issue, and also because of market demoralization.

Stoessel, an Independent jobber who has been interested in tax evasion work for about 12 years, cited "evasions" which he had checked. He told of one transporter with a load declared for an Ohio destination offering to sell the load in Iowa, following a breakdown on the highway. Another case was trucks coming across Nebraska for an alleged Iowa destination, remaining in Iowa a short time, then returning across the boundary to unload in Nebraska.

Iowa has two boundaries regarded as vulnerable to evasion on account of a difference in gasoline tax rates. Missouri has a 2-cent tax, against Iowa's 3 cents. Gasoline can be delivered to a bulk plant in Missouri, the Missouri tax paid, and the gasoline dumped in Iowa, giving the tax evader a 1-cent advantage, it was pointed out.

At the northwest corner of Iowa there is South Dakota with a 4 cent rate. Gasoline, it was charged, can be delivered at a South Dakota bulk plant, with exemption claimed from the South Dakota tax because of delivering gasoline into Iowa — with its lower tax rate — although the gasoline may actually be dumped in South Dakota.

Truckers Deny Tax Evasion

Charges of tax evasion are unfounded, the new transporters' association claims. In a public statement, the association "resented" statements in the Senate, when the truck bill was under consideration, charging evasion.

Iowa has adequate checks on transport inshipments, it was contended, through Kansas port-of-entry records and monthly reports from refiners.

When a transport enters Kansas three copies of a manifest are obtained at the port of entry, it was pointed out. These manifests, filled in at the refinery, are returned to the port of entry on leaving the state. The records go to the capitol at Topeka, and one copy sent to the state where the load was delivered.

Refineries also send monthly statements to states to which the gasoline is transported, so the jobber's monthly gasoline tax report can be checked against records from the refinery and the Kansas ports of entry. Also, the refiner has a sales contract with jobbers, naming destinations of transport loads, and a transport would not be loaded for a destination other than that shown in the contract, it was said.

Political Angles Involved

Testimony was given at the Senate hearing by assistants in the state treasurer's office, denying charges of widespread tax evasion. Yet, the evasion issue has a political twist.

The previous state administration promised economy and Leo J. Wegeman, former state treasurer, practiced economy, with the gasoline tax department operated by two officials. The new administration now in power also pledged economy. So, in view of the previous record it would be difficult — from a standpoint of practical politics —to increase the gasoline tax department personnel.

Economy hangs over the general tax evasion question so that it would be difficult to have the department spend money for a force to check evasion, even if the cost would be much more than offset by additional collections, backers of the 1200-gallon bill point out. From a politician's viewpoint, therefore, a bill to bar transports from the highway, would be acceptable, wiping out evasion from this source—if there is any—without increasing the cost of government.

Major oil companies have held aloof from the bill. Reports indicate dissension within the ranks of some oil companies as to a stand on whether transport loads should be limited, but appearances are not expected to be made for or against the bill. As the bill is controversial the Iowa petroleum industries committee has not taken a stand one way or the other.

Iowa Truck Movement Growing

Truck transportation out of Kansas has its eastern frontier in Iowa. The 41 transporters have ten sources of supply for moving products as far east in Iowa as Des Moines. About 15 oil jobbers operate their own transport equipment, it was said. Tank capacities are from 2200 to 3600 gallons.

The Mississippi river, Iowa's eastern boundary, in more recent years has become a point of origin for truck transporters. Two major oil companies have marine terminals along the Mississippi river and transports, of 4000 gallons capacity, operated by a contract carrier move products as far west as Des Moines.

About 10 per cent of the petroleum products consumed in Iowa enter by truck transports, and signs indicate a growth in this transportation method if unhampered by restrictive legislation.

One jobber has started construction of a marine terminal along the Mississippi river, and other jobbers are known to be contemplating terminals. Then, along Iowa's western boundary there is the Missouri river, in which a deeper channel is being cut, and marine terminals are believed likely, when the channel is completed, for the Omaha-Council Bluffs area and Sioux City.

Goplerud Heads Iowa Jobbers

Following are the officers and directors of the Iowa Independent Oil Jobbers' Assn. for the coming year, elected at the annual convention last week in Des Moines:

President, Gerhard Goplerud, Osage, Goplerud Oil Co.

Vice-president, F. H. Hatch, Edgewood, Jones County Oil Co.

Treasurer, G. D. Finnigan*, Cedar Rapids, Super Service Oil Co.

Secretary, A. C. Gienapp*, Manchester.

New directors, Ernest Logue, Livermore, Livermore Oil Co.; Chris Jacobson, Britt, Britt Oil Co.; Harry Fee, Waterloo, Harry Fee Oil Co.; E. G. Carthey, Davenport, Carthey Petroleum Corp.; Charles Schultz, Nevada, Nevada Independent Oil Co.; A. B. Kelly, Creston, Kelly Oil Co.; and H. D. Banta, Burlington, the Interstate Oil Co.

Directors re-elected, W. J. Mohler, Schaller, Schaller Oil Co.; J. Arthur Dennis, Knoxville, Iowa Independent Oil Co.; B. F. Bostwick, Washington Oil Co.; and Hatch and Finnigan.

*Re-elected.

ICC Upholds Rails On Gasoline Weight

(*Continued from page 5*)

ing freight charges was "unreasonable", in that it was too high and subjected shippers to pay freight charges on more gasoline than they actually receive. Many of the complainants sought reparation for past overcharges.

In its report on the case, ICC goes back to the origin of the use of 6.6. It says:

Used Since 1910

The use of estimated weights in computing freight charges on petroleum and its products has been followed for many years. Since 1910 the estimated weight of 6.6 pounds per gallon has applied on gasoline, naphtha, kerosine, lubricating oils, and other refined petroleum products of which there are a number. Crude, fuel and gas oils are transported by the carriers at an estimated weight of 7.4 pounds per gallon and at rates lower than those now applying on the refined products.

"As hereinafter more definitely appears, the estimated weight of 6.6 pounds per gallon exceeds the actual weight of present commercial gasoline, but is less than the actual weight of kerosine. To avoid paying freight charges on gasoline on the basis now in effect, a different method is sought (by complainants). To determine the so-called actual weight of the shipment some complainants and some supporting intervenors prefer the use of gravity and temperature tests made by the shipper at the time of shipment; others are willing to accept track-scale weights. If those two methods are not acceptable, an estimated weight which more closely approximates the actual weight will be satisfactory. The principal complainants urge that this weight be fixed at 6 pounds per gallon.

"Some complainants and some supporting intervenors, though differing as to details, suggest that the present grouping of refined oil products be broken into two or more smaller groups and a different estimated weight, more nearly approximating the present actual weight, assigned to each. This would result in increases in freight charges on the heavier petroleum products and reductions on the lighter ones, principally gasoline, shipped by complainants."

At this point the ICC decision starts its argument against a change in the weight estimate:

Industry and Rails Agreed

"When the estimated weight . . . was established it represented an agreement between the oil industry and the railroads, and probably approximated the actual average weight of refined products then moving," the report says, continuing: "It should be remembered that this weight was not designed for gasoline as an individual commodity, but was deemed proper for a group of related refined oil products. Although there has been a tendency during recent years to lighten the specific gravity of commercial grades of gasoline, there has been no material change in the average weights of the various refined oil products considered as a group, but there has been a marked change in the relative amounts produced and shipped."

Summing up testimony as to actual weights of the various products moving under the 6.6 estimate, the ICC report approximates them at: 6.1 pounds for gasoline, 6.75 pounds for kerosine, 7.5 pounds for lubricating oils, and 6.35 pounds for naphtha.

"We have adhered closely to the principle," ICC continues, "which is unquestionably sound, that estimated weights should be as near actual weights as possible. This is especially true when they are used to determine freight charges on commodities which frequently load varying amounts above the established minima.

"Different Situation"

"With respect to petroleum and its products, however, a different situation is presented. Reference to different decisions fixing reasonable rates on petroleum products throughout the considered territory (from the Mid-continent to middle western states) shows that what the commission did in effect was to prescribe carload rates, which are both maximum and minimum.

"This results from prescribing the shell capacity of the car as a minimum weight. The estimated weight of 6.6 pounds per gallon and the prescribed rates were only a means of arriving at those charges. Any other method, such as rates based on gallons instead of pounds, might just as well have been used.

"In other words, the commission in those various proceedings was dealing primarily with carload rates earning definite per car and per car mile revenue, and if the estimated weight is reduced, a compensating increase would have to be made in the rate per 100 pounds, as there is no showing that the carload rates or charges are unreasonable. To reduce the weight and make the corresponding increase in the rate would be a vain thing and benefit nobody."

With reference to claims for reparations for overcharges, the ICC says "there was no overcharge, however, as the charges collected were computed in accordance with the provisions of the applicable tariffs.

The ICC said that oil companies "representing 95 per cent or more of the petroleum products industry" in the midwestern territory involved, from the "standpoint of tonnage shipped," had intervened in support of the present system of estimated weights, contending that it was "simple" and that they objected to calculations involved in actual weights.

"Equal for All"

"The present method of determining the freight charges is the same for the entire group of refined oil products and applies to all shippers alike. It avoids unjust discrimination and undue prejudice. When the requirements of the tariffs have not been departed from there can be no overcharge. Viewing the situation as a whole the record is persuasive that the allegations of unreasonableness, unjust discrimination, and undue prejudice have not been sustained."

A dissenting opinion was filed in the case by Commissioner Splawn, who chided the commission for its decision in view of "frequent" utterances to the effect that "a reasonable estimated weight is one that approximates the true weight of the commodity."

Actual weights of petroleum products are as much as 10 per cent less than the estimated weights, he pointed out and added:

"Sound criteria of reasonable estimated weights should be applied and some adjustment made. No convincing reason is given by the majority, nor do I find in the decisions mentioned or cited by them, substantial support for their conclusion, which fails to give effect to a principle recognized by them as unquestionably sound."

Here's

An Oil Jobbers Convention You Should Attend . . .

THE theme of the Indiana Convention will be "How to Make Profits in 1939," with every speaker on the program talking to the point of selling goods at a profit.

All oil men and representatives of related industries are urged to be on hand at Hotel Severin March 14-16 at Indianapolis for this event.

A constructive program of interest to oil companies and allied lines with something at stake in the welfare of the industry.

This advertisement is carried by National Petroleum News with the best wishes for a successful convention—Editor

Local Roads Most Needed, Asphalt Convention Hears

N. P. N. News Bureau

LOS ANGELES, March 4. — Too much emphasis on the relatively unused, long distance, expensive types of pavement and too little consideration of the vital need for low-cost roads to handle the farm-to-market and suburban traffic in population centers, is the principal fault of our highway program, declared J. E. Pennybacker, managing director of the Asphalt Institute, at the opening of that organization's 12th annual convention, held in Los Angeles Feb. 27 to Mar. 3.

Analysis of recent planning surveys by H. S. Fairbank of the U. S. Bureau of Roads, Pennybacker said, showed that in one of 11 western states studied, 43.8 per cent of all one-way highway trips extended beyond city limits less than five miles; and 30 miles would cover majority of one-way trips outside cities in these 11 states, he added.

Pennybacker said this same trunk-line psychology was responsible for the wide acceptance of another fallacy, namely, that the economic and military feasibility of great transcontinental toll boulevards could be self-sustaining. He cited Fairbank's estimate that transcontinental traffic amounted to only 300 vehicles per mile per day.

Taking a look at the record, the Institute's director said traffic surveys in ten representative states having a total of 859,980 miles of highway revealed the startling fact that only 6916 miles or 0.8 of one per cent carried a traffic of 2000 vehicles or more per mile per day, which many regard as the minimum traffic to warrant a high-type pavement.

The same surveys, he continued, showed only 12,348 miles, or 1.44 per cent, with a traffic of 1500 vehicles per mile per day. Completing the picture, he said the surveys showed 24,110 miles, or 3 per cent of the total, with a traffic of 1000 or more vehicles per mile per day, "surely the minimum for a trunk line type," he added. Pennybacker went on to cite W. C. Markham, secretary of the American Ass'n. of State Highway Officials, to the effect that the ten states, covered by these surveys, had 43,132 miles of all types of pavement on January 1, 1937, excluding low cost bituminous mixes and surface treated types. "If you add the pavement built in 1937 and 1938, you can conservatively say that if a traffic of 1000 vehicles per mile per day is minimum for a pavement, then those states have 100 per cent more pavement than the traffic warrants."

Applied to the 3,033,000 miles of highway in the nation as a whole, the speaker said a total need for 90,990 miles of pavement would be indicated, on the basis of a 1000 vehicle requirement for pavement and the three per cent factor. Again referring to Markham's report, he pointed to the 120,216 miles of pavement built prior to the beginning of 1937, not including 1937 and 1938.

"In this obvious overbuilding we see rather tangible reason why the gasoline tax has gone up and up," he said.

Pennybacker next turned to accidents to pedestrians in stressing the need for sidewalks —to be made of asphalt—along rural roads and highways. During 1937, he said, citing records, 3480 pedestrians were killed while walking on rural highways and 13,960 were injured as against 1730 persons killed and 7470 injured by collision with railroad trains.

N. F. McCoy, U. S. Bureau of Public Roads senior highway engineer at San Francisco, and Prevost Hubbard, chemical engineer of the Asphalt Institute, presented a joint paper on research into asphalt tests.

Bernard E. Gray, chief engineer, Asphalt Institute, and Early Withycombe, assistant construction engineer, California Division of Highways, told assembled delegates a 20-foot pavement has become the minimum width and that the trend is toward 22 and 24 feet. Traffic surveys were declared to indicate that at present day speeds the average clearance required between cars had increased to the point where a 10-foot lane is inadequate for safety.

J. S. Helm (Standard of New Jersey), president of the Institute, said surplus cotton would find a ready market and that thousands of additional acres would be planted when the asphalt industry fully develops the technique for using this product in soil-stabilization work. Cotton has been used with some success under the paving to form a more substantial foundation. When covered with an asphaltic surface, the base becomes a permanent structure.

Helm said modern day travel had created a condition of not knowing one's own neighbors, but of being on intimate terms with inhabitants of cities a hundred or more miles away.

"The automobile and truck," he declared, "stand as the symbol of motion, commerce and human contacts. Gasoline is the life blood of the new economic order. Thus, these two factors, with the highway as the third, comprise an indisoluble trinity."

Californians will be Told Why Curtailment fell Short

N. P. N. News Bureau

LOS ANGELES, March 4. — Straight-from-the-shoulder facts expected to be presented at a mass meeting of California oil operators in Los Angeles March 9 at which the Emergency Executive Committee of Independent Operators will give account for their efforts to effect a curtailment in crude production to estimated demand, 600,000 barrels a day.

Supported by data collected by a fact-finding committee of five public citizens, the emergency committee is expected to tell exactly why the most determined and well organized curtailment effort compliance in California's history fell about 25,000 barrels a day short of the mark, and to submit recommendations for correcting the situation.

In the light of the so-called oil control bill and the severance tax which will be among the first orders of business when the state legislature reconvenes March 6, it is perhaps noteworthy that California's Governor Olson, the state director of finance, other state officials, together with boards of supervisors, tax assessors, and other public officials of oil counties, as well as public officials of cities in which oil plays an important part, have been asked to attend the meeting and form their own opinions of critical conditions facing the West Coast oil industry.

In commenting on the current crisis, E. E. Pyles, chairman of the emergency committee, said: "The oil industry right now is at the crossroads. Production has averaged approximately 625,000 barrels a day, with the result that during January more than 2,000,000 barrels were added to storage.

"It was to avoid this burden that the daily quota of 600,000 barrels was set, but that quota has thus far not been reached.

"Because the oil industry's stability is of vast importance to every citizen in the state, and to every other industry, the committee feels that is of primary importance that everyone in the state have knowledge of its conditions."

Records of the oil umpire for February showed daily average production of crude as 621,549 barrels, compared to 626,868 for the first 28 days of January and 624,102 barrels for the full month of January.

The Central Committee of California Petroleum Producers —proration body under the voluntary program — has set the state crude allowable for March at 600,000 barrels daily plus an allowance of 2000 barrels a day for new wells completed during the month. This latter figure is 3000 barrels under the February allowance for new wells.

Wet Blanket on Drilling

Dana Hogan, of Hogan Petroleum Co., told members of the central committee that at the meeting to set April's crude quota he would offer a resolution to the effect that the allowable for any well drilled in the state after March 15 would be fixed at 150 barrels a day, instead of 300 barrels, as permitted now. It was believed this would put a wet blanket on new drilling.

When the California industry at next week's meeting gets down to pointing fingers at those flies in the ointment which have prevented fulfillment of the curtailment objective, five areas are expected to stand in the spotlight: Kettleman Hills, Ventura Ave., Elk Hills, Rosecrans, and Rincon, and will hold up to criticism the practices of operators from the smallest to the biggest.

A matter of considerable concern to curtailment leaders has been the steady decline in fuel oil sales during the past six months as a result of several factors, which include transfer of the navy's battle fleet to the East Coast; the sustained high prices for bunker oil on the West Coast which saw many intercoastal lines buy most of their needs at the Gulf; and a lagging of Japanese demand for all products which is reported down from 24 to 19 per cent of the market for California oils and likely to decline even further in the next few months.

Even with substantial consumption for orchard-heating during January, fuel oil stocks were increased 287,211 barrels during the month to a total of 71,245,092 barrels.

Sun Spending 11 Million On Houdry Units

N. P. N. News Bureau

CLEVELAND, March 6. — That the Sun Oil Co. is spending $11,000,000 in the construction of two Houdry catalytic cracking units at its refineries at Marcus Hook, Pa., and Toledo, O., is brought out in the annual report of the company for 1938, as recently made by J. Howard Pew, president. In December the company sold $12,000,000 of ten-year debentures, to finance the adaptation and expansion of refineries under this new process, he stated.

"One plant already in operation has demonstrated that the process will produce a much higher proportion of gasoline from the crude, and of better quality, than has ever before been possible and at lower operating costs," stated Pew in his company's report. "From the lowest grades of crudes and refinery residuums, upwards of 80 per cent of premium gasoline can be obtained."

Net income of the Sun Oil Co. for 1938 was reported as $3,086,461, as compared with $9,545,492 in 1937. Gross income was $115,047,237, as against $133,323,263 in 1937. Operating charges in 1938 were $113,773,432, as compared with $125,582,397 in 1937. Of these, general operating expenses were $96,637,842 in 1938, as against $106,333,288 the previous year. Other items under operating charges in 1938 were comparable with 1937.

Net operating income was $1,273,805 in 1938 and non-operating income $2,145,728. Net operating income in 1937 was $7,740,866 and non-operating income $2,188,018. The company added $229,210 net to surplus from 1938 operations, its earned surplus as of Dec. 31, 1938, being $11,182,964.

Gives Tax Burden

In a summary of taxes paid or accrued by the Sun Oil Co. for 1938, President Pew gave a total of $34,375,564, only about a million less than the figure for 1937. For 1938 he showed federal taxes, including income tax, of $1,065,426, and other taxes paid by the company of $3,173,211. For state and provincial gasoline taxes collected by the company he gave a figure of $22,946,701 and for federal gasoline and oil taxes $7,190,226.

"The most disturbing fact in connection with our excessive taxation is that lawmakers seem utterly conscienceless about it," said Pew in commenting on the tax situation. "They accuse the industry of being monopolistic, although it is notoriously the most competitive business in the land. They charge us with exacting extortionate prices for our products, despite that the index of commodity prices shows petroleum products the cheapest commodities of general use.

"They levy unconscionable taxes on gasoline on the pretence that they shall be held sacred to highway requirements and then they divert vast sums to all manner of non-highway purposes — to relief, to education, to general governmental expenses.

"Employes, stockholders, royalty owners, motorists and everybody concerned in any business collateral to this industry ought to unite in effective protest against this kind of tax discrimination and extortion."

A two-cent gasoline tax, honestly collected and efficiently used, would amply meet present highway requirements — construction and maintenance, Pew said. "We are apparently spending more on maintenance of roads than was required, a few years ago, both to build and maintain them," he stated. He said it was high time an appropriate public agency was set up to study the question of highway maintenance and to report on "what becomes of some $600,000,000 a year in excess of the real requirements of the highways."

Union Spent $12,967,377 on Properties in '38

CLEVELAND, March 6.—Union Oil Co. of California reported net profit for 1938 of $6,862,758, or $1.47 a share, as compared with $12,061,332 and $2.58 a share in 1937. Reese H. Taylor, president, said the decreased profit was largely due to lower crude oil production, decreased sales volume, increased payroll and taxes and large additions to inventories, whereas withdrawals from inventories were made in 1937.

Additions to properties in 1938 amounted to $12,967,377 and additions to inventories totaled $4,112,289. Earned surplus at the end of 1938 amounted to $19,253,961, an increase of $1,261,834 for the year.

DALLAS, Tex., March 6. — The Aloco Oil Co. of Dallas has completed negotiations for The Texas Corp.'s holdings in Yoakum county, together with 17 producing wells for cash payment of $656,000 for the producers and an overriding royalty on the acreage.

1938 Sales Volume Larger, Atlantic Refining Reports

N. P. N. News Bureau

CLEVELAND, March 6.—Atlantic Refining Co. and its subsidiaries for 1938 had a net income of $4,317,297, J. W. Van Dyke, chairman of the board reported. This compares with a net income for 1937 of $9,942,222.

While earnings fell substantially short of those in 1937, Van Dyke in his report to stockholders, said he looked upon 1938 as a year of real progress for the company.

"Volume of sales showed a slight increase over 1937," he stated, "the net worth of your company and the book value of each common share increased. The net value of properties, plant and equipment recorded one of the largest increases in your company's history."

In commenting on net total fixed assets at the end of 1938 of $142,172,000, as compared with $134,126,000 at the end of 1937, Van Dyke said the difference, $8,046,000, represented the increase in the net value of the company's property, plant and equipment, and, allowing for $13,194,000 for depreciation and retirements during the year, there was represented $21,240,000 expenditures for properties, plant and equipment during the year, the third largest in the company's history. These were allocated to the various divisions as follows:

Crude oil production	$10,688,000
Manufacturing	1,552,000
Marketing	5,634,000
Pipeline transportation	408,000
Marine transportation	2,927,000
Miscellaneous	31,000

Atlantic Refining's costs, operating and general expenses in 1938 were $101,603,249 in 1938, as compared with $103,957,896 in 1937. Operating income before reserves was $18,809,171 in 1938, and $22,059,785 in 1937. The company added $1,537,720 to earned surplus, bringing the figure to $63,158,274 at the end of 1938.

In commenting on the country-wide decline in oil prices in 1938, Van Dyke said in his opinion this was due to the impact of the increasing crude oil production from the relatively new fields in southern Illinois, Southern Louisiana and to a lesser extent southern Arkansas, upon the stabilized production of the Mid-Continent area, at a time when the total demand for products from U. S. refiners was decreasing.

* * *

Terminals Completed By Kyso

CLEVELAND, March 6.—Standard Oil Co. of Kentucky reported net profits for 1938, after federal and state taxes on income, of $3,779,706, equal to $1.45 a share, as compared with $4,182,896 in 1937, equal to $1.60 a share. Surplus was increased $523,716 to $8,796,445.

President W. E. Smith reported to stockholders that the company's policy of expanding and modernizing its marketing and transportation facilities had been continued in 1938 and that, during the year, new terminals were completed at Pensacola, Fla., and Mobile, Ala.

* * *

Illinois Supplied Third of Pure's Oil

N. P. N. News Bureau

CLEVELAND, March 6.—Net earnings of the Pure Oil Co. and subsidiaries in 1938 were $5,412,903 after all charges, Henry M. Dawes, president, reported, compared with $11,403,805 earned in 1937, the highest earnings for the company in 11 years.

Costs, operating and general expenses were $87,650,337 in 1938, as compared with $95,972,835 in 1937. The company added $1,529,964 to its earned surplus, which stood at $19,164,713 at the end of 1938. Principal developments by the company in 1938 were reported by President Dawes as follows:

Total net crude production was 19,683,000 barrels, as compared with 20,305,000 barrels in 1937.

The company produced 6,484,000 barrels of crude in Illinois in 1938 and President Dawes stated that, under the operating policies being followed, the opinion of the company's geological force was that it will be many years before its properties in this state will be completely explored.

He stated that the company's marketing operations had been further concentrated during the year by the disposition of a group of outlying outlets which had been adversely affected by changing transportation and marketing conditions and that a flexibility in refining operations was being achieved that would make it possible for the company to shift operations to conform most efficiently to changing conditions.

Illinois Tax Conference

CHICAGO, March 7. — A conference has been called by the Illinois tax commission for county treasurers, judges and clerks for March 9-10 in Springfield to discuss procedure in taxing oil leases and royalties.

Plan to Base Crude Price On 'Gas' Prices Postponed

(*Continued from page* 5)

would have to be absorbed elsewhere, he pointed out.

Before Hill appeared at the meeting several operators had criticized the plan National had announced it would adopt March 10. Basing the price of crude on the price of gasoline, the operators said, was putting the cart before the horse. Instead the gasoline price should be based on the price of crude, they said.

National Refining Co. March 1, notified all producers from whom it buys crude in northeastern Oklahoma and southeastern Oklahoma that, after March 10, it would pay each month for their oil 18.5 times the monthly average of the daily low tank car quotation for "house brand" gasoline f.o.b. Group 3 published by the Chicago Journal of Commerce.

Its new price to producers in these stripper well areas, and on basis of the present published quotation, would be about 21 cents a barrel under the posted price for crude of other large purchasers in this territory.

This 18.5 relationship between the price to the producer for his crude and tank car or wholesale prices for gasoline, was first set up by the oil code administration agencies in the early days of the NRA oil code in 1933, as the basis under which crude prices were to be fixed under authority of the code, had price fixing come about.

The constant 18.5 was then defined as "representing the relationship, during the period from 1928 to 1932, between the average price per barrel of Mid-Continent crude petroleum of 36-36.9 A.P.I. gravity and the average Group Three price per gallon of U. S. Motor Gasoline of 57-65 octane rating or 58-60 U. S. Motor Gasoline."

The formula National Refining wanted to use is reported to have been adopted by one or two refiners in Kansas in the purchase of crude from some of the western Kansas pools but none of them have released for publication any statement on how the plan is working.

Lifted Pipeline Proration

National some time ago was forced to adopt pipeline proration in the stripper well areas in which it buys crude. Then Phillips came along and offered to take the surplus crude off National's hands and National accordingly lifted pipeline proration, which had been on the basis of approximately 70 per cent of production.

National's plan, meanwhile, brings into sharper focus the fact that the low gravity crude from stripper wells is becoming a more serious factor in the general Mid-Continent crude picture. It has been accentuated through the replacing of some of the market for crude in the southwest by oil from the recently expanding new pools in Illinois.

Sinclair Prairie Oil Marketing Co. recently revised its postings in northern Oklahoma and southern Kansas to cut from 4 to 17 cents the prices it would pay for the low gravity oils. In two or three other areas refiners have been buying low gravity crude on their own schedules, which were somewhat under those of the larger purchasers.

Ben Franklin Resumes 100% Buying

TULSA, March 6.—Producers in the Healdton stripper well area in southern Oklahoma from whom it buys crude were notified today by Ben Franklin Refining Co., Ardmore, Okla. that effective March 6 it would resume purchasing 100 per cent of the production from leases to which it is connected. No revision was made, however, in its price schedule, which is slightly under postings of major buyers.

The refining company's move followed closely on heels of announcement Shell Petroleum Corp. had acquired a number of properties and connections in that and other southeastern Oklahoma areas from Carter Oil Co. The Ben Franklin company had been buying some crude from Carter which it is reported to have lost when Shell took over the properties, necessitating resumption of the 100 per cent purchases from other connections.

Arkansas Races to Join Oil Compact Before State Legislature Adjourns

BULLETIN

LITTLE ROCK, Ark., March 7.—The Arkansas Oil & Gas Conservation Commission unanimously approved the state becoming a member of the Interstate Oil & Gas Compact following a conference here March 6 with Gov. Bailey. A resolution is being prepared for immediate presentation to the Legislature, the governor said.

* * *

FORT SMITH, Ark., March 5.—The Arkansas legislature probably will be asked within the next three days to approve that state's participation in the Interstate Oil and Gas Compact.

This was indicated here Sunday following a conference between Gov. Leon C. Phillips of Oklahoma and Gov. Carl E. Bailey of Arkansas regarding several mutual problems. The conference had been requested by Gov. Phillips after the enactment recently of Arkansas' new oil and gas conservation law.

'Blocks Federal Control'

"We feel that our new oil conservation law," Gov. Bailey said, "is a complete answer to any charge that the federal government needs to step in to control the oil industry. However, if the compact strengthens state rights in relation to oil conservation that is probably reason enough for us entering the compact."

Gov. Bailey also announced following the conference that O. C. Bailey of El Dorado, Ark., chairman of the new conservation commission, would meet him in Fort Smith March 6 to discuss the compact and the possibility of the legislature approving the state's entrance into the compact before next Thursday, sine die adjournment date of the general assembly. Gov. Phillips was accompanied to the Arkansas border city by several of the compact commission's staff.

Taxman Opens Illinois Plant

CHICAGO, March 6.—The Advance Refining Co., Inc. which has taken over the Power Oil & Refining Co.'s 2000-bbl. skimming and topping plant at Centralia, Ill. will go on stream about March 15, according to announcement by J. J. Taxman, president. Atlas Petroleum Co., Chicago, will be the sales outlet.

Kansas March Allowable

WICHITA, Kan., March 6.—The crude oil production allowable for March has been set by the Kansas Corporation Commission at 156,850 barrels daily, approximately 3000 barrels above the February figure and 6500 barrels above the Bureau of Mines' estimate of market demand for Kansas crude in March.

John Day Appointed Temporary Secretary Of Western Refiners

N. P. N. News Bureau

TULSA, March 4.—John C. Day, economist and statistician for the Western Petroleum Refiners Assn. for the past four years, has been appointed temporary secretary and treasurer of that organization. He succeeds A. V. Bourque, whose resignation was accepted Feb. 28 by the association's executive committee.

Day's appointment was announced by President C. M. Boggs following a meeting of the executive committee here March 2, the appointment being retroactive to March 1. The committee accepted Bourque's resignation, previously, tendered, effective Feb. 28.

Bourque resigned the position he has held for the past 10 years to accept the presidency of the newly-organized Petroleum Sales Co., refiners' sales agency. (N.P.N., March 1, Page 9.)

Day joined the association's staff in the fall of 1935 after several years with the Barnsdall Refining Co. Prior to joining Barnsdall he was with its predecessor, the former Waite Phillips Oil Co. He came to that company from several years in the engineering department of the Frisco railroad.

ROBINSON, Ill.—The Illinois-Indiana Petroleum Assn. will hold its seventh annual petroleum conference in Robinson, June 3, Lee Mulvihill, executive secretary, has announced.

Prepare for Wildcat Test For Oil in Missouri

TULSA, March 6. — First wildcat test in the western part of the Forest City Basin area is scheduled to get under way March 7 or 8. The test is located near Mound City, Holt county, Missouri, one of the northwestern corner counties.

The site is part of a block of leases assembled by Oklahomans. Drilling contract, it was reported, calls for a 3000-foot well.

Oil men indicated that should this test find oil it probably will start further exploration in nearby Nebraska and Kansas and might spread to the southwest corner of Iowa.

Editor's Note: An article on Forest City Basin, with discussion of possible effect on the midwestern marketing area *IF* oil is found, appears on Page 26 of this issue.

32 States Report Larger Gasoline Demand in '38

State 'Gas' Tax Receipts Confirm Gain; 47 States Show Increase for December

N. P. N. News Bureau

NEW YORK, March 6.—With industrial activity slackening in all key industries in 1938, gasoline consumption kept out of the red by showing an increase of 0.8 per cent over 1937, according to state gasoline tax collection reports compiled by the American Petroleum Institute.

Total gasoline consumption in 1938 was 21,405,943,000 gallons compared with 21,236,659,000 gallons in 1937, state tax returns indicate.

Two-thirds of the states showed increased consumption, ranging from 0.10 per cent in Idaho to 13.75 per cent in South Dakota. Decreases ranged from 0.16 per cent in New Hampshire to 5.1 per cent in Michigan.

Changes in the six largest consuming states the past year over the previous year were: California, 0.32 per cent decrease; Illinois, 3.21 per cent increase; New York, 0.74 per cent decrease; Ohio, 2.29 per cent decrease; Pennsylvania, 0.98 per cent decrease; and Texas, 4.10 per cent increase.

Southwest Has Big Gain

The southwestern states showed the largest gain in consumption the past year over the previous year. This was 4.06 per cent. Other sections of the country indicated these changes: New England, 1.26 per cent decrease; Middle Atlantic states, 0.69 per cent increase; Middle West, 2.39 per cent increase; Southeast, 2.20 per cent gain; Rocky Mountain, 0.19 per cent decrease; and Pacific Coast, 0.85 per cent gain.

In December, gasoline consumption amounted to 1,749,399,000 gallons, an increase of 134,232,000 gallons, or 8.31 per cent over December a year ago. Only one state, Arizona, showed a decrease. Increases for December ranged from 0.91 per cent in Connecticut to 35.22 per cent in Idaho.

Changes in consumption in the years back to 1929 have been, in each instance figured over the previous year: 1937, 8.06 per cent increase; 1936, 10.14 per cent increase; 1935, 6.30 per cent increase; 1934, 7.63 per cent increase; 1933, 0.16 per cent decrease; 1932, 7.26 per cent decrease; 1931, 4.10 per cent increase; 1930, 6.0 per cent increase; and 1929, 12.3 per cent increase.

Penn Crude Prices Hiked 10-12 Cents

PITTSBURGH. — Effective March 6, principal purchasers of Pennsylvania grade crude advanced prices from 10 to 12 cents, making top price $2 per barrel for Bradford-Allegany grade. This was the third advance since the first of the year. The other two were: Feb. 1, 8-15 cents advance; and Jan. 21, 9-12 cents advance.

This increase in prices came as pretty much of a surprise to some refiners, it was reported. However, one refiner said he had been expecting the advance, observing that refinery crude runs had been running from 13,000 to 14,000 barrels daily in excess of crude production. No statements explaining the advance were issued by the companies who advanced prices.

Amounts of increases by the principal purchasers were: Joseph Seep Purchasing Agency, which advanced crude in Southwest Pennsylvania pipe lines and in Eureka lines (West Virginia), 12 cents; and in Buckeye lines (Macksburg, O., district) 10 cents; Tide Water Associated Oil Co., Bradford-Allegany crude, 12 cents; and The Pennzoil Co., lower district Pennsylvania crude, 12 cents.

New prices are published in the crude price tables at the back of this issue.

'Gas' Stocks Up Slightly

N. P. N. News Bureau

NEW YORK, March 7.—The smallest weekly increase—782,000 barrels—in U. S. gasoline stocks in several weeks was reported for the week ended March 4 by the American Petroleum Institute today.

At the same time, inventories of gas and fuel oils declined 1,741,000 barrels, the Institute's report showed. Crude runs to refinery stills were increased 45,000 barrels on daily average, while gasoline production at plants reporting this item to the Institute was 30,000 barrels lower than in the week ended Feb. 24.

The Institute's estimate of the country's gasoline inventories on March 4 was 85,379,000 barrels, 7,906,000 barrels below inventories on the same date a year ago. In the Feb. 27-March 4 period last year, stocks increased 691,000 barrels as compared with last week's increase of 782,000 barrels.

Standing at 131,930,000 barrels on March 4, inventories of gas and fuel oils were down nearly 23,000,000 barrels from the peak inventories of these oils reached last fall.

Stocks of gas oils and distillates declined 970,000 barrels last week and residual fuels were down 771,000 barrels. The decline in residual fuels compares with an increase of 472,000 barrels reported for the similar period last year.

U. S. Gasoline Consumption By States, for 1938, and December, 1938

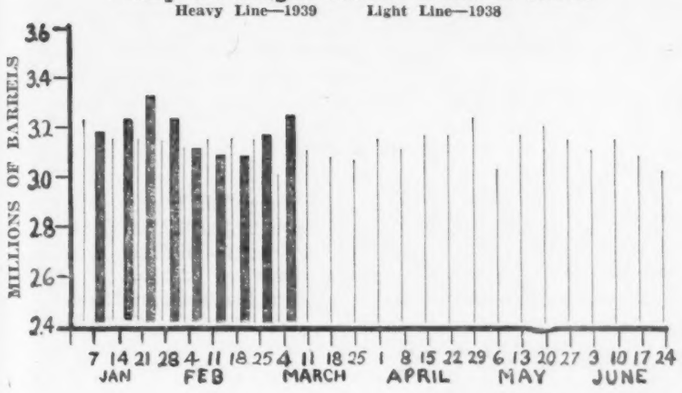
(Figures in Thousands of Gallons)

	Month of Nov., 1938 Gallons	Month of Dec., 1938 Gallons	Month of Dec., 1937 Gallons	% Change 1938 over 1937	12 Months Ending With Dec., 1938 Gallons	12 Months Ending With Dec., 1937 Gallons	% Change 1938 over 1937
Alabama	19,221	20,119	18,561	+ 8.39	230,277	225,865	+ 1.95
Arizona	8,777	8,978	9,483	— 5.33	102,210	103,869	— 1.60
Arkansas	17,129	14,705	13,560	+ 8.44	170,083	164,146	+ 3.62
California	140,007	148,919	147,093	+ 1.24	1,752,302	1,757,845	— 0.32
Colorado	17,340	16,456	14,868	+10.68	226,967	221,028	+ 2.69
Connecticut	26,197	26,057	25,821	+ 0.91	319,464	326,907	— 2.28
Delaware	4,365	4,386	4,199	+ 4.45	55,562	54,678	+ 1.62
District of Columbia	11,528	11,889	11,574	+ 2.72	139,291	136,984	+ 1.68
Florida	27,589	32,692	31,710	+ 3.10	338,603	328,915	+ 2.95
Georgia	28,480	30,272	28,458	+ 6.37	338,787	331,760	+ 2.12
Idaho	7,551	6,567	6,448	+ 1.85	94,701	94,607	+ 0.10
Illinois	113,418	107,397	93,236	+15.19	1,334,841	1,293,364	+ 3.21
Indiana	53,092	50,378	43,692	+15.30	631,916	633,819	— 0.30
Iowa	42,767	43,318	32,035	+35.22	528,093	495,896	+ 6.49
Kansas	32,438	35,050	31,051	+12.88	469,014	470,172	— 0.25
Kentucky	22,459	21,360	19,370	+10.27	256,590	251,844	+ 1.88
Louisiana	22,269	21,976	20,896	+ 5.19	247,770	238,535	+ 3.87
Maine	11,210	9,908	9,535	+ 3.91	144,866	145,443	— 0.40
Maryland	22,107	22,008	21,807	+ 0.92	271,956	270,188	+ 0.65
Massachusetts	58,198	57,097	54,552	+ 4.67	690,160	696,484	— 0.91
Michigan	94,336	87,059	80,209	+ 8.54	1,053,960	1,110,604	— 5.10
Minnesota	43,127	36,795	34,944	+ 5.30	529,725	509,898	+ 3.89
Mississippi	17,153	17,305	14,504	+19.31	193,862	189,801	+ 2.14
Missouri	50,928	51,948	44,257	+17.38	603,659	590,496	+ 2.23
Montana	8,641	7,550	6,630	+13.88	118,604	115,920	+ 2.32
Nebraska	19,402	17,318	16,349	+ 5.93	230,554	229,110	+ 0.63
Nevada	3,477	3,201	2,996	+ 6.84	39,817	37,368	+ 6.55
New Hampshire	6,632	6,054	5,574	+ 8.61	85,156	85,295	— 0.16
New Jersey	66,137	67,343	65,771	+ 2.39	829,425	820,577	+ 1.08
New Mexico	7,613	7,293	6,884	+ 5.94	90,107	88,683	+ 1.61
New York	139,470	146,901	137,001	+ 7.23	1,802,217	1,815,562	— 0.74
North Carolina	34,976	34,267	33,090	+ 3.56	400,949	389,441	+ 2.96
North Dakota	9,671	6,588	5,904	+11.59	127,298	121,741	+ 4.56
Ohio	106,106	105,469	94,575	+11.52	1,278,825	1,308,748	— 2.29
Oklahoma	32,863	36,862	29,790	+23.74	401,707	389,945	+ 3.02
Oregon	17,617	17,144	16,056	+ 6.78	229,685	226,833	+ 1.26
Pennsylvania	117,218	114,570	111,445	+ 2.80	1,403,586	1,417,478	— 0.98
Rhode Island	9,627	9,897	9,260	+ 6.88	120,986	122,366	— 1.13
South Carolina	16,242	17,203	15,783	+ 9.00	195,558	188,169	+ 3.93
South Dakota	9,897	10,029	7,458	+34.47	129,355	113,721	+13.75
Tennessee	24,109	24,130	20,461	+17.93	282,127	266,921	+ 5.70
Texas	104,655	107,275	99,164	+ 8.18	1,270,280	1,220,261	+ 4.10
Utah	7,543	7,131	6,725	+ 6.04	92,769	91,110	+ 1.82
Vermont	5,255	4,674	4,626	+ 1.04	64,323	65,797	— 2.24
Virginia	29,942	29,725	27,786	+ 6.98	355,154	342,626	+ 3.66
Washington	26,904	25,678	24,670	+ 4.09	337,927	334,482	+ 1.03
West Virginia	15,766	15,170	14,352	+ 5.70	190,349	196,236	— 3.00
Wisconsin	44,709	40,508	36,959	+ 9.63	542,463	541,100	+ 0.25
Wyoming	4,893	4,780	3,995	+19.65	62,063	64,021	— 3.06
Total	1,761,051	1,749,399	1,615,167	+ 8.31	21,405,943	21,236,659	+ 0.80
Daily Average	58,702	56,432	52,102	+ 8.31	58,646	58,183	+ 0.80
Change from previous year:							
Total change		+134,232	.....	.....	+169,284	.....	.....
Percentage change in Daily Av.		+8.31%	.....	.....	+0.80%	.....	.....

Latest Oil Industry Statistics

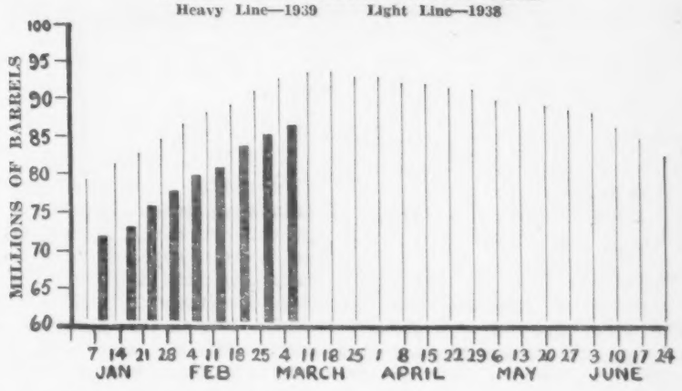
Daily Average Crude Runs to Stills

Heavy Line—1939 Light Line—1938



Total U. S. Motor Fuel Stocks

Heavy Line—1939 Light Line—1938



A. P. I. Weekly Refinery Report

(Figures in Thousands of Barrels of 42 Gallons Each)

Districts	Per Cent Capacity	Daily Average Crude to Stills (Barrels) Week Ended		Per Cent of Reporting Capacity Operated Week Ended		(a) Gasoline Production Week Ended		Stocks (Thousands of Barrels) Total Finished and Unfinished Motor Fuel(b) Week Ended		Stocks of Gas and Fuel Oil — Gas Oil and Distillates Week Ended		Residual Fuel Oil Week Ended		Total Week Ended	
		Mar. 4	Feb. 25	Mar. 4	Feb. 25	Mar. 4	Feb. 25	Mar. 4	Feb. 25	Mar. 4	Feb. 25	Mar. 4	Feb. 25	Mar. 4	Feb. 25
East Coast	100.0	529	470	86.0	76.4	1,378	1,366	19,836	20,066	3,563	3,571	5,020	5,214	8,583	8,785
Appalachian	85.9	114	114	89.1	89.1	375	419	3,425	3,499	223	225	518	512	741	737
Ind., Ill., Ky.	89.5	446	450	86.8	87.5	1,837	1,754	14,835	14,512	2,443	2,558	3,143	3,219	5,586	5,807
Okla., Kans., Mo.	81.6	233	249	68.1	72.8	(c)841	(c)870	8,243	8,077	1,125	1,185	2,939	3,030	4,064	4,185
Inland Texas	50.3	106	111	66.7	69.8	468	510	1,958	1,995	284	296	1,560	1,568	1,844	1,864
Texas Gulf	89.3	813	798	90.8	89.2	2,511	2,458	11,176	10,970	2,580	2,822	4,838	4,840	7,418	7,662
La. Gulf	97.3	110	127	75.9	87.6	234	305	2,803	2,699	744	754	649	777	1,393	1,531
No. La., Ark.	55.0	35	45	63.6	81.8	101	136	493	538	243	256	561	574	804	830
Rocky Mt.	54.2	34	42	53.1	65.6	206	200	1,812	1,760	160	151	564	554	724	705
California	90.0	456	426	61.2	57.2	1,469	1,441	15,688	15,421	10,484	10,941	87,289	87,574	97,773	98,515
Total Reporting	85.8	2,876	2,832	78.5	77.3	9,420	9,450	80,269	79,487	21,849	22,789	107,081	107,832	128,930	130,621
U. S. Total (d)		3,230	3,185					85,379	84,597	22,449	23,419	109,481	110,252	131,930	133,671
U. S. Total, 3-5-38(d)		3,093	3,149					92,285	91,594	19,756	20,063	101,532	101,030	121,288	121,123

(a) Includes straight-run, cracked and natural blended.
(b) Includes stocks at refineries, in bulk-terminals, pipe lines and in transit.
(c) 12% of reporting capacity in this district did not report gasoline production.
(d) Estimated, U. S. Bureau of Mines basis.

Trends of Basic Figures

	Mar. 4	Feb. 25	Mar. 4, '38
Crude Production (*Bbls. daily*)	3,314,850	3,328,850	3,339,700
Crude Imports (*Bbls. daily*)	50,430	80,140	56,430
Crude Runs to Stills (*Bbls. daily*)	3,230,000	3,185,000	3,093,000
Gasoline Stocks (*Bbls. total*)	85,379,000	84,597,000	92,285,000
Gas & Fuel Oil Stocks (*Bbls. total*)	131,930,000	133,671,000	121,288,000

Daily Average in Crude Oil Production for the U. S.

(American Petroleum Institute figures)

	Week Ended March 4 Barrels	Week Ended Feb. 25 Barrels	Week Ended Feb. 18 Barrels
Oklahoma City	110,350	114,050	111,400
Total Oklahoma	441,200	449,800	444,500
Kansas	144,900	150,700	152,400
East Texas	372,650	372,550	372,400
Total Texas	1,321,050	1,311,700	1,304,300
Total Louisiana	266,650	266,900	264,650
Illinois (New pools)	149,950	143,600	142,250
California	609,300	622,300	632,900
East of Rockies	2,705,550	2,706,550	2,691,400
Total U. S.	3,314,850	3,328,850	3,324,300
Crude Imports	44,125	80,140	35,430
Total New Supply	3,358,975	3,408,990	3,359,730

Inventories, January 31, 1939, of Pennsylvania Lubricating Oils

(Compiled by National Petroleum Ass'n. from reports of all companies which refine Pennsylvania crude oil. Figures in barrels.)

Raw Long Residuum (Including all raw long residuum below, and not salable, as 600 fire)	39,593
Steam Refined (Includes all steam refined stock commonly sold or used as 600 and as raw material for bright stocks)	257,867
Other Steam Refined (Not included in above items)	133,336
Finished Dewaxed Long Residuum	68,208
Bright Stock (Does not include any material reported in Finished Dewaxed Long Res.)	387,083
Viscous Neutral, below 180 vis. but not below 142 vis. at 100	77,470
Viscous Neutral, 180 vis. at 100 & above	210,943

Inventories, Jan. 31, 1939, of Pennsylvania Oils Other Than Lubricating Oils

(Compiled by National Petroleum Ass'n. from reports of oil region refiners. Figures in Barrels.)

Naphthas & Gasoline

(1) Straight run, unblended and/or unleaded, for sale as motor fuel	36,151
(2) Naphtha and gasoline, for sale for blending or further refining or held at refinery for further distillation, reforming, blending or leading	268,529
(3) Below 65 octane, not included in (1) or (2) above	495
(4) 65 octane and above	339,784
Salable naphthas other than motor fuel material (do not include refinery process naphthas)	46,375
Kerosine	87,920
36/40 gas oil (include furnace oil)	42,836
Fuel oil (not reported above)	18,840
Oils held as cracking plant charging stocks	279,773
Non viscous neutral	19,745
Wax distillate	82,358
Crude petroleum	34,516
Wax (lbs.)	4,751,455

March 16-17 Meet Of S.A.E. Features Topics on Aviation

N. P. N. News Bureau

NEW YORK, Mar. 4.—American aviation's importance in world affairs at present will be told by G. Grant Mason Jr., of the U. S. Civil Aeronautics Authority, at the banquet March 17 of the national aeronautic meeting of the Society of Automotive Engineers in Washington.

Seven meetings in two days, March 16-17, will bring together aviation technologists and authorities from all over America to discuss recent developments in aircraft and aircraft engines and fuels. Progress in this field is so rapid now that keeping step with the advances is a difficult problem for those interested.

The possibilities for the Otto-cycle or gasoline engine to show higher economies will be discussed by D. S. Hersey of Pratt & Whitney Aircraft Co. in terms of the newer engine designs.

Uses of so-called "safety" fuels in aircraft engines, F. C. Mock of Bendix Products Corp. Aircraft fire hazards and their reduction, use of feathering propellers are some of the subjects also listed.

DEATHS

Edward F. Hallock

Edward F. Hallock, 50, chief automotive engineer for Socony-Vacuum Oil Co. died of pneumonia and complications at the Park East Hospital, New York City, February 23. He was widely known in automotive circles and had been with Socony for twenty years. He wrote some of the earlier technical books on automobiles.

He was a member of the Society of Automotive Engineers and the American Society of Mechanical Engineers, and was formerly connected with several trade papers, among them, Automobile Digest, Motor World and Motor Cycle Review.

Surviving are his widow, a sister and a brother.

Coming Meetings

Indiana Independent Petroleum Assn., spring convention and refiners' and suppliers' exhibit, Hotel Severin, Indianapolis, March 14-16.

Society of Automotive Engineers, Aeronautical meeting, Hotel Washington, Washington, D. C., March 16, 17.

American Petroleum Institute, Division of Production, Southwest District, Plaza Hotel, San Antonio, March 16, 17.

Western Petroleum Refiners Assn., annual meeting, Hotel Plaza, San Antonio, March 20 to 22.

Oil Trades Assn. of New York, annual meeting, Waldorf-Astoria Hotel, New York City, March 21.

American Assn. of Petroleum Geologists. 24th annual meeting, Skirvin Hotel, Oklahoma City, Okla., March 22, 23, 24.

American Chemical Society, Baltimore, Md., April 3-7.

American Petroleum Institute, Division of Production, Eastern District, William Penn Hotel, Pittsburgh, Pa., April 4, 5.

American Petroleum Institute, Division of Production, Pacific Coast Section, Hotel Biltmore, Los Angeles, April 11.

Michigan Petroleum Assn., 5th annual meeting, Detroit-Leland Hotel, Detroit, Mich., April 11, 12.

National Petroleum Assn., 36th semi-annual meeting, Hotel Cleveland, Cleveland, O., April 13, 14.

Fuel Oil Distributors Assn. of New Jersey, Asbury Park, N. J., April 13, 14.

American Petroleum Institute, Division of Production, Mid-Continent District, Skirvin Hotel, Oklahoma City, Okla., April 18, 19.

Oil Burner Institute, Hotel New Yorker, New York City, April 18.

Oil-World Exposition, Houston, Tex., April 24 to 29.

American Institute of Mining & Metallurgical Engineers, Open Hearth Conference, Cleveland, April 26, 27, 28.

Petroleum Electric Supply Assn. and Petroleum Industry Electrical Assn., Rice Hotel, Houston, Tex., May 2-4.

Natural Gasoline Assn. of America, Hotel Tulsa, Tulsa, May 3-5.

American Institute of Chemical Engineers, Akron, O., May 9-11.

Virginia Oil Men's Assn., annual spring meeting, John Marshall Hotel, Richmond, May 11, 12.

American Petroleum Institute, 9th mid-year meeting, Roosevelt Hotel, New Orleans, La., May 15 to 18.

National Oil Scouts Assn., Houston, Tex., tentative dates May 18-20.

National Assn. of Purchasing Agents (Oil Company Buyers' Group), annual meeting, Fairmont Hotel, San Francisco, Calif., May 21 to 25.

World Automotive Engineering Congress, sponsored by S.A.E. for New York, Hotel Pennsylvania, May 22-28; Indianapolis, May 29, 30; Detroit, Hotel Statler, May 31-June 2; San Francisco, Hotel Fairmont, June 6-8.

Illinois-Indiana Petroleum Assn., annual meeting, Robinson, Ill., June 3.

Pennsylvania Grade Crude Oil Assn., annual meeting, Hotel Hershey, Hershey, Pa., June 15, 16.

13th International Congress of Carbide, Acetylene, Oxy-Acetylene Welding & Allied Industries, Munich, Germany, June 25 to July 1.

American Society for Testing Materials, 42nd annual meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., June 26 to 30.

American Institute of Mining & Metallurgical Engineers, regional meeting, San Francisco, July 10 to 17.

The Eastern United States Michigan Oil & Gas Exposition, Mt. Pleasant, Mich., Aug. 1 to 6.

New Jersey Oil Trades Assn., fall outing, Sept. 28.

Independent Petroleum Assn. of America, 10th annual meeting, Ft. Worth, Tex., some time in October.

40th Annual National Automobile Show, Grand Central Palace, New York, week of Oct. 15.

National Safety Congress and Exposition, Chalfont Hadden Hall, Atlantic City, N. J., Oct. 16 to 20.

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Aviation Diesels—And National Defense

By Arch L. Foster, N. P. N. Technical Editor

A healthy concern regarding our national defense, both military and commercial, leads us to believe that we as an industrial nation are now giving inadequate attention to the matter of the development of successful aviation diesel engines. Considerable attention has been paid to research programs on diesels in this country; locomotive, automotive and other high-speed diesels have progressed far under American efforts. Aviation diesel research here has lagged sadly behind that of some European countries, if recurrent reports are true.

In the airways of the world, any engine which weighs less than two pounds per brake horsepower including cooling fluid required is something with competitors may well reckon. A diesel engine which meets that weight specification is something still more arresting, among the power engineers. Yet that is just what the German Junkers engineers are now testing. A 1200-brake horsepower diesel weighing about 2200 pounds, maybe less, which our own engineers say is the equivalent in fuel consumption to our own new 1500 b.h.p. gasoline aviation engines.

Furthermore, those same engineers are designing a 2000 h.p. diesel for aircraft, which will weigh "less than one pound per brake horsepower." Paul H. Wilkinson, American aircraft diesel engine authority, is reported to say, "The 2000 horsepower engine will be far ahead of anything we have or will have, in the United States. With a diameter of 39 inches and weight of less than 1 lb. per b.h.p., this powerful, liquid-cooled, two-stroke-cycle engine will be hard to beat. When its crankshafts are turning over at 3000 r.p.m., there will be 144,000 power impulses per minute from the 48 pistons of this square-type 24-cylinder engine—approximating the smooth power-flow of the turbine."

Powered by four 800 b.h.p. Junkers diesels, a seaplane in 1938 broke the long-distance record for that type of plane, travelling non-stop more than 5000 miles from England to Brazil. Two of these 2000-h.p. engines would give 25% more power on the propellers than these four engines, now rather outmoded.

Sometimes slight differences in certain factors make the difference between superiority and inferiority. These engines are reported to operate at full cruising speed at a specific fuel consumption of 0.32 lb. per h.p.-hour. Two years ago Barnard reported that, using 100 octane number fuels, American aviation engines will show a consumption of 0.34 lb./h.p./hr., and we have every reason to believe that our newest engines will equal or better the 0.32 figure. So any advantage in these diesel engines must come from some other factor than fuel-burning efficiency.

It seems fantastic at first thought that a diesel engine can be made lighter per horsepower than can a gasoline engine; yet if that can be done, a definite advantage is gained. Liquid-cooled engines offer some advantage, engineers tell us; if so, these engines may have the inside track somewhat on our air-cooled engines.

The air resistance of an engine being forced through the atmosphere is proportional to its cross-section, other things equal. If the diesel is being built with less frontal resistance, another advantage shows up to increase payload and cruising radius, and reduce fuel consumption.

We do not know all the answers to these questions; maybe our engineers do. In any case we should find out with a minimum of delay, if we do not already know. It may be disastrous alike to remain in ignorance of the answers or to permit ourselves to be out-thought or out-invented by any other people. The Germans are after trans-Atlantic aviation business, and with typical Teutonic thoroughness are leaving no stone unturned to produce the facilities to handle and increase that business.

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Aviation Diesels—And National Defense . . . R-81

Insulating Refractory Gaining Preference in Cracking Furnace Construction R-82

Simplification, lighter weight, lower costs, and satisfactory service are some of the general reasons for a trend toward newer designs of tube-still heater wall construction.

Waste Products Successfully Burned as Fuel at Oil Refineries, by A. L. Wilson R-88

Nonmerchantable sludges, tars, tank cleanings, and other minor refinery by-products are successfully used as fuel in specially designed furnaces and burners.

Johnson "Midget" Poly. Unit Boosts Gasoline Yield Three Per Cent, by Wm. J. Leenhouts . . . R-92

Catalytic polymerization of refinery gases containing 45-47% propene and butenes increases plant gasoline yield by 3% of topped crude charged to Dubbs cracking still. Polymer of 82-85 octane number reduces crude requirements 6% for same amount of gasoline output and cuts lead costs.

Activities of Equipment Manufacturers R-96

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Refining Technology

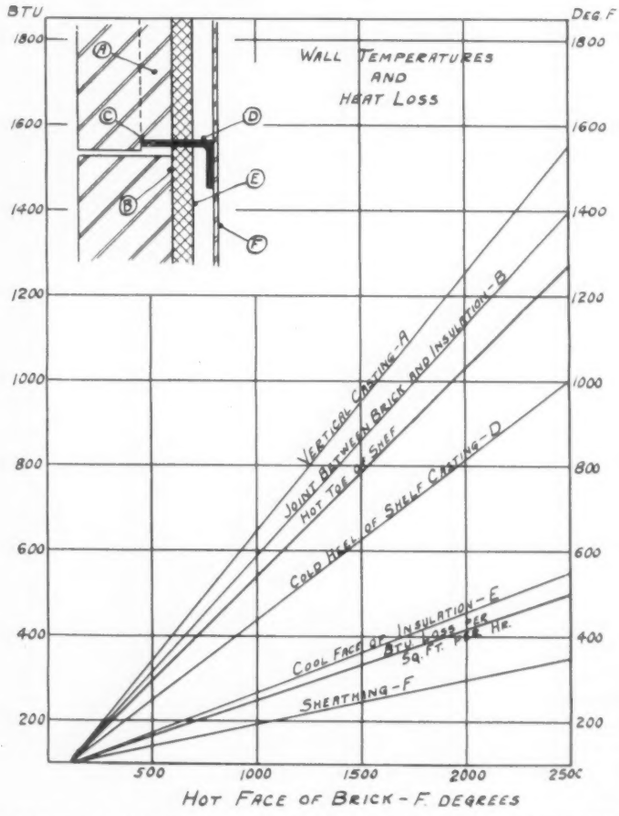
Insulating Refractory Gaining Preference In Cracking Furnace Construction

By M. G. Van Voorhis
N. P. N. Staff Writer

A DEFINITE swing toward simplification and lighter weight construction of oil heaters in cracking service, viscosity breaking, naphtha reforming and other processes is now under way. This trend has been made possible by the introduction of insulating refractories. Under the impetus of six years of service without replacement of a single brick in one of the first oil heaters of this new type ever constructed, and of repeat installations of this type of furnace by several major oil companies, future construction seems certain to continue in this direction.

One of the significant results of the trend to this lower cost construction in connection with design simplification is the elimination of special shapes of refractories and the return to the standard sized rectangular brick. The standard size brick, of course, must be modified in one way or another to engage the suspension means and special shapes are used, as before, around openings, as corner tile and shelf tile. Refinery engineering firms are working independently of wall and arch companies and designing their own construction and suspensions.

Insulating refractory is similar in composition to corresponding heavy refractories. Light weight, lower densities, and consequent higher insulating values are the result of manufacturing technique in putting minute air or gas bubbles throughout the mass. Thermal conductivity, weight, and heat capacity is between one-third and one-fourth that of ordinary fire-brick of the same materials.



Curves of this type are important to the design of refractory walls. For given hot face temperatures, the temperature at any point in the wall can be read so that the thickness of the refractory and insulation backing can be determined as well as the type of material necessary in the refractory supports

The tendency of furnace builders to develop their own wall designs may possibly be accounted for by the generally satisfactory solution of more pressing problems in tube still design and heat transfer. Engineers who found it necessary to give considerable attention to still-tube heat transfer, fuel combustion, shapes of chambers, burners, radiant and convection heat control, tube placement, tube materials, and other important furnace problems have reached the point where wall efficiency became of relatively greater importance.

Within the past three years, and largely within the past year and a half, much attention has been directed to actual experimental studies of heat transfer and losses through furnace walls. Thermo-couples have been put into experimental walls so that temperatures could be measured at any depth and for any temperature on the inside wall. These thermocouples were located at critical points as well as at spaced intervals through the refractory itself. Temperatures were measured on the supporting castings to determine what materials should be used for given sets of conditions.

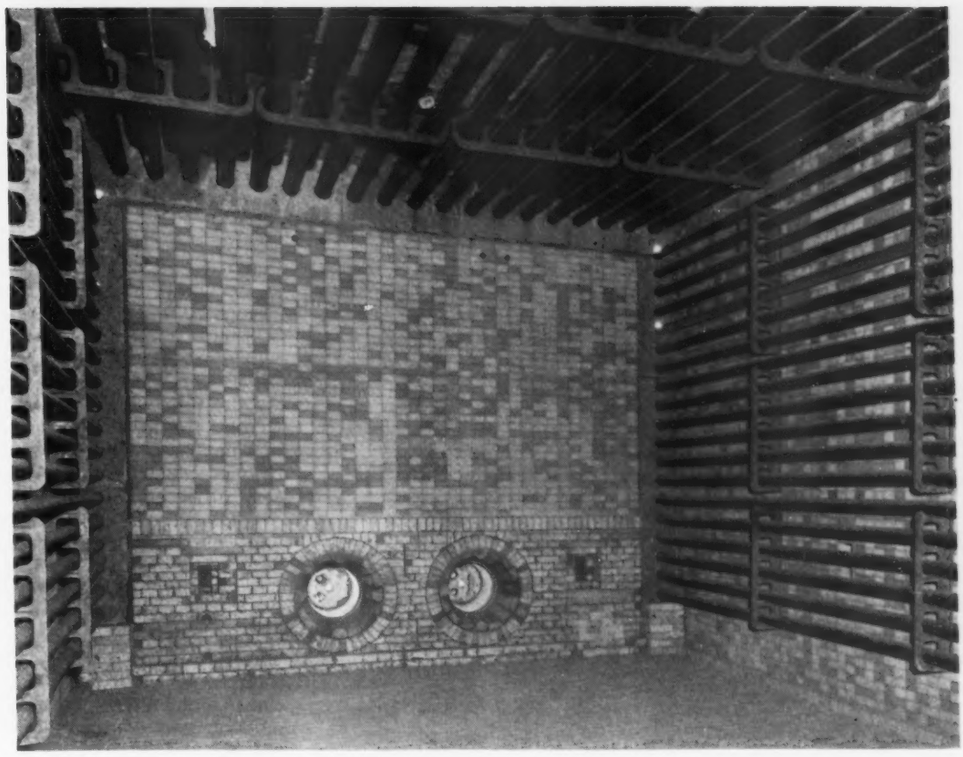
The accompanying chart shows a typical set of results of a series of tests of this kind. Each line on the chart shows the temperature rise and heat loss at one point in the wall as the hot face of the brick is raised in temperature. Charts such as this one make it possible to determine the most economic thicknesses of refractory and insulation, both for ordinary firebrick and insulating refractory, and also the type of supporting castings necessary to withstand the temperatures reached.

THE simplicity of wall design made possible by the use of insulating refractory is shown by the accompanying sectional and interior views of the Lummus wall. In the Lummus furnace all setting bricks are of standard shape except at the top and bottom of the panels and around openings in the walls. In the walls a stack of 18 bricks is retained by a rod extending through or engaging with the bricks. Wall panels run approximately seven feet six inches in width. In the arch, the brick retaining rods are supported at four points instead of at two as in the walls.

The wall thickness is generally ten inches and is made up of nine inches of high refractory insulating brick and one inch of block insulation. In the lower-temperature convection section the refractory thickness is 4½ inches with 1½ inches of insulation.

One of the outstanding advantages of the insulating brick to the wall designer is the accuracy with which they are made. The bricks are machined accurately to size after being calcined. In panel design when one-sixteenth inch is allowed for expansion in the panel, exactly that space can be depended upon as being left for the expansion, it is said. If a half brick or special shape is required, a carpenter's saw will cut a brick as easily as a board.

The builders use this accuracy of expansion joints to as-



The interior of an insulating refractory furnace showing the even layers and stacks of standard sized brick except around the burner openings

sure a tight wall at operating temperatures without the use of any bonding cement. This is a revolutionary step in furnace construction. None of the Lummus insulating refractory furnaces now built contain any bonding cement. In the Lummus wall shown herewith, the toe of the supporting angles is protected from the radiant heat in the absence of mortar by a small amount of insulation packing at the horizontal joints between panels. Since expansion can be more accurately determined and allowed for in construction, only enough space between individual brick and panels is provided to permit closing up at operating temperatures.

Some of the other builders, however, have not been converted to practice of eliminating bonding cement. In these instances the design allows for more expansion space and a compressible type of bonding cement is used. In some circumstances where conditions are severe enough to be detrimental to the refractory, a mortar wash has been applied to the exposed surfaces of the refractories as a protection.

In all cases the refractory wall, backed up with insulating block, is encased in steel plate sheathing. This is said to give an air-tight and low-heat-flow wall. Radiation losses for nine-inch insulating firebrick wall with one inch of insulation are comparable at 1800° F. with standard sectionally supported wall of seven inches of dense refractory backed up with four inches of insulation (2½ inches at 1100° F.)

Weight of the standard nine-inch insulating refractory brick is approximately two pounds compared to seven and one-half pounds for a standard first class firebrick. This advantage is further appreciated from the fact that in one design, wall and arch overall weights of insulating refractory brick are 38 and 25 pounds per square foot respectively as compared with 105 pounds for sectionally supported wall using seven inches of firebrick and four inches of insulating material encased in steel.

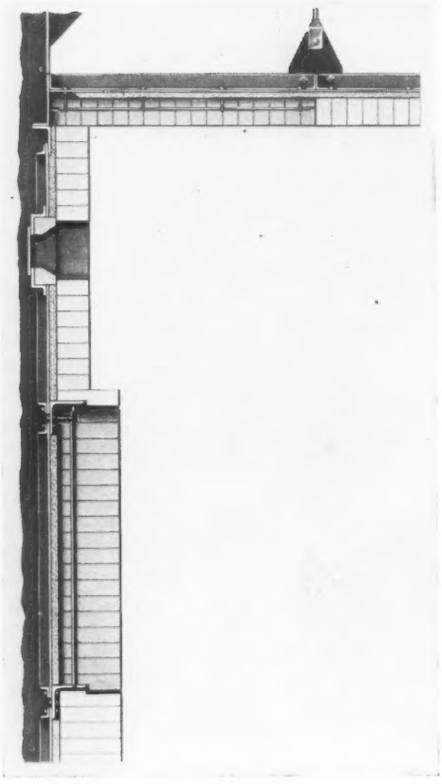
Since high heat transfer rates to still tubes are utilized, the weight of tubes and supports is reduced to a minimum, it is pointed out. These features of construction result in a foundation load considerably lighter than with a furnace designed for low heat transfer rates and built with heavy refractory walls. In locations where poor soil conditions exist these new design features are of special importance. Minimized foundation loads and light weight floors make possible floor support above ground level thereby eliminating heat flow into the foundation.

All of these factors make possible a unit of relatively low first cost while providing economical operating characteristics. Although insulating brick were developed particularly for the intermittent furnaces much used in steel treatment where low heat storage capacity is important to fuel economy, this latter property has some value in oil refining in reducing shutdown time and avoiding some of the coking of tubes which occurs while a furnace is cooling off. The furnace can also be brought more quickly to working temperature. The insulating refractory walls have approximately one-sixth the heat storage capacity of sectionally supported standard refractory walls, one authority states.

There is now available a wide variety of the insulating refractory brick to meet various temperature and other requirements and also a wide range of prices depending largely upon the temperatures to be encountered. Oil heater service is considered relatively mild as compared to steel furnaces and boiler settings and, therefore, does not require the highest grade refractories as a rule. Cost per thousand insulating refractory brick has been estimated to be roughly double that for standard firebrick. Several factors already mentioned offset this extra cost and elimination of shapes is also an important consideration, engineers say.

The mechanical strength of insulating refractory is, of course, far below that of standard firebrick and makes them appear fragile. One authority states that too much emphasis has been placed upon mechanical strength inasmuch as strength is not required in furnace service. He adds that unless mechanical vibration or abrasion is severe, bricks of low strength have shown no inferiority to strong ones in service; in fact weaker structure sometimes withstands spalling better.

Insulating fire brick is said to increase the temperature uniformity in furnaces for two reasons. High surface temperature makes heat interchange by radiation large. As the temperature drop along the path of gas travel under balanced conditions is in proportion to heat loss from the furnace walls, insulating brick is of considerable assistance. Heat conduction parallel to the wall face toward doors and other openings is said to be minimized. Efficiency of com-



In the Lummus-type wall, rods through drilled holes in the brick hold them in place. Offsets in the bricks at the top and bottom of a stack help to protect the supporting angles

bustion is increased by high surface temperature. The question of temperature uniformity is a controversial one, however.

One well known furnace of recent design which does not use insulating refractory is the Equiflux of Universal Oil Products Co., it is understood. In this furnace, which features irradiation of tubes from both sides, conditions in the combustion chambers are more severe, particularly from flame impingement upon the walls, as contrasted to the more common practice in which walls are more or less shielded by tube banks. Insulating refractory lacks resistance to slags which would be formed by combustion products on the walls and resistance to spalling in this type of service is generally low, particularly at high temperatures, it is said.

Several Firms Interested

The Lummus Co. built its first all-insulating-refractory furnace at an oil refinery six years ago. This company now has 64 furnace settings to its credit, including 85 coils. Refiner acceptance of this type of furnace is shown by the fact that one major oil company is using 17 of these heaters and two other major companies account for 11 each. The 17 heaters of the one company have a total rated capacity of about 700,000,000 B.t.u.'s absorbed per hour.

More recently Alco Products, The M. W. Kellogg Co., and Alcorn Combustion Co. have turned to this type of construction and new designs of wall construction have been worked out. The Alco design is similar to that used by Lummus with the rod retaining bricks by extending through drilled holes. Babcock & Wilcox engineers developed the rod idea also and a design using anchor hooks instead of rods. Alcorn Combustion Co. has used the latter principle.

The hook-type wall is laid with mortar. It has the advantage of requiring no drilling of bricks. Hook bolts are driven downward into the bricks when laid and need be driven only into a few of the bricks in a panel. Brick are supported by ledge angles in stacks of 12 in the B & W design and panels are 12 bricks in height and four and one-half wide. The weight per square foot of wall panel is slightly less than in the B & W rod type.

The insulating tile panel construction of George P. Reintjes Co. is shown in an accompanying illustration. Standard size bricks are held by V-shaped cuts in the corners, as shown. A 4½-inch wall is shown with a space of one inch between the refractory and the casing support for insulation. The panels are built in widths of 9, 18, and 27 inches and heights from four to six feet. The panel support forms the outer casing which is held in place by notched cam locks removable by a half-turn with a wrench. One is shown in the cross-section of the I-beam.

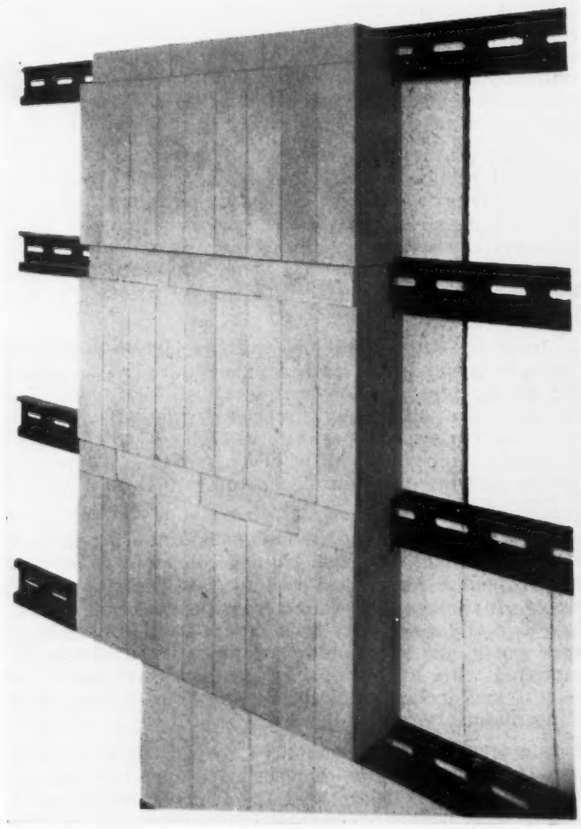
Bigelow-Liptak supporting structure is heavier than any construction described above and contrasts also in the use of one shape rather than all standard-size brick. This company's engineers feel that consumers who have found satisfactory trouble-free operation in the standard suspended walls will not be content with what may appear to them as flimsy construction by contrast.

In this view the company does not stand alone. Although the M. W. Kellogg light-weight furnace wall design has not been disclosed, it is understood to be of somewhat heavier construction than the majority of insulating refractory furnaces now built.

The Bigelow light-weight wall, illustrated herewith, follows the same general engineering principles of the company's standard walls. It is a unit-suspended wall with complete insulation. The horizontal castings, spaced 16 inches apart, carry only the row of special shapes above them and lock in place the row of shapes below. In this way, it is pointed out, there is no cumulative loading of brick and there is positive suspension of every refractory tile. A special plastic bonding material is used which allows for the expansion and contraction of each individual block without any cumulative expansion.

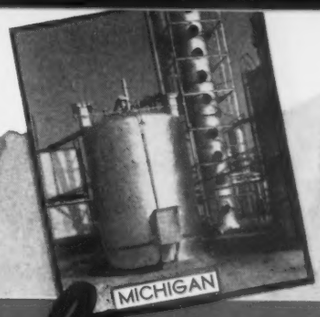
The need for air-tightness is stressed for necessary efficiency. Fuels which were formerly waste products are gaining value as illustrated by polymerization of waste gases so that efficiency gained by careful sealing is said to be of prime importance.

Light-weight construction may not mean insulating re-



There is no cumulative loading nor cumulative expansion in the Bigelow wall. Each tile is supported by horizontal castings spaced 16 inches apart. A plastic bonding material is used

An INTEGRAL PART OF the Modern Refinery



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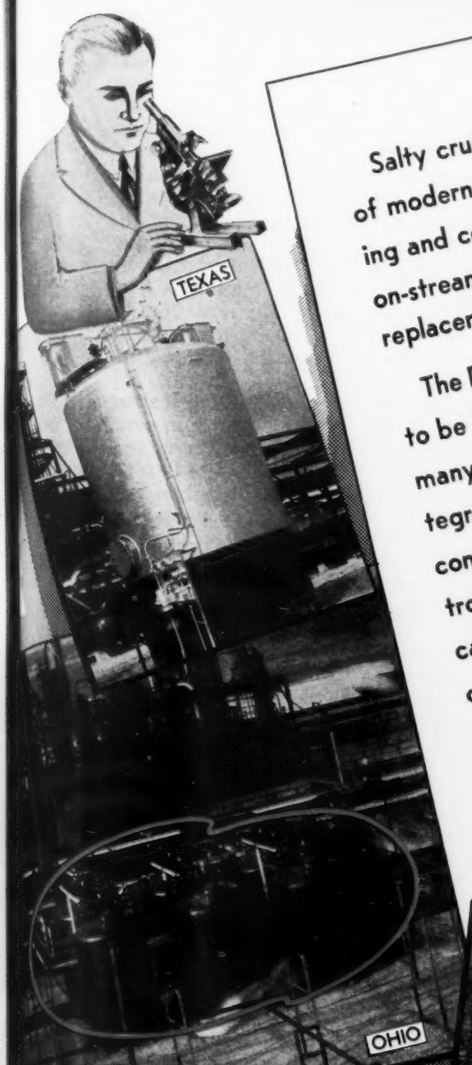

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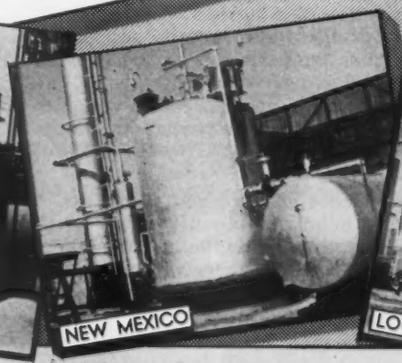

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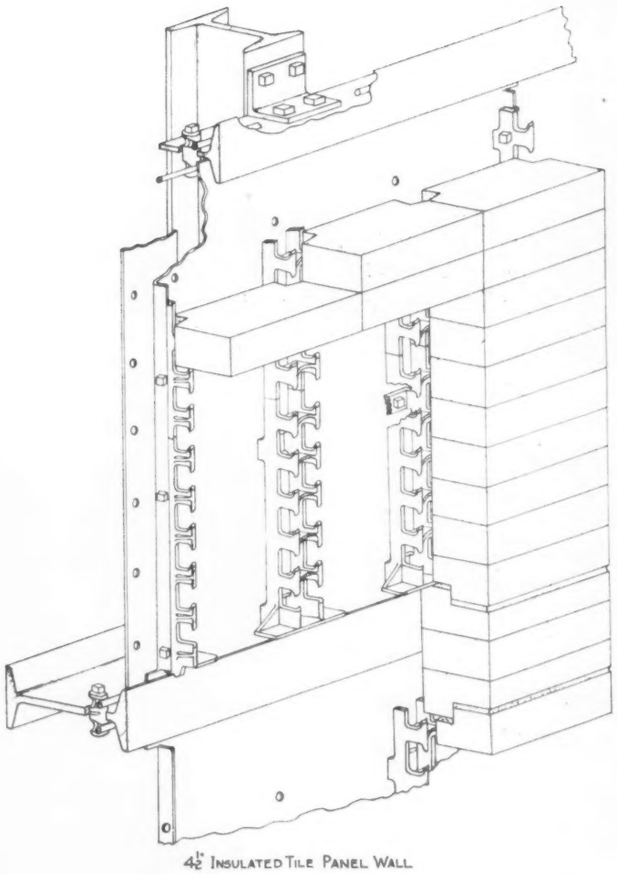

4½" Insulated Tile Panel Wall

Insulating refractory brick are held in panels by corner notches in George P. Reintjes' wall design. The brick are of standard size and stacks are supported by ledges on the retaining castings. The panel support forms the outer casing

fractory necessarily, it has been pointed out. The growing use of insulating refractory was preceded or accompanied by lowering wall thicknesses of ordinary firebrick walls. Latest reductions were made possible by improving the heat resistance of the structural supports of the walls. Thus meehanite irons of various grades, depending upon the temperatures reached, replaced ordinary cast grey iron.

Wall thicknesses dropped from nine to seven inches and to five inches in parts of the furnaces where the service is not so severe. Use of insulation backing became more common. Heat is now generally retained by one to two inches of block insulation burying the metal supporting castings. The use of insulation backing has been the direct factor responsible for improvement of structural supporting materials to stand the higher temperatures at the back of the firebrick inasmuch as it has done away with air cooling which had formerly been depended upon to cool castings to safe temperatures. The gain from the change in design practice must be paid for by the reduction in heat losses through the walls.

Increasing costs of the more efficient walls produced a temporary trend back to the solid wall because of top heaviness in costs. Some solid walls were actually built where the service was not severe. However, these walls were not the thick walls of earlier days. They were "tied-back" walls, i.e., they were self supporting but were prevented from falling inward by being tied back to a structural support.

In view of the present trend toward insulating refractory the M. H. Detrick Co. is prepared to offer firebrick walls three inches in thickness with a backing of two inches of high-temperature insulating block. This would mean that metal supports would be less than three inches from the inside furnace walls. Refractory supports have to stand still higher temperatures than before but are lighter in weight which is a factor reducing costs of alloys used in the structure.

The Detrick company has installed a number of insulating refractory walls on oil stills. The first, in 1934, is still in service. An installation of the alternate 3-inch firebrick suspended wall has been in operation over two years opposite the convection bank of an oil still. Approximately 50 installations of 4-inch walls are in operation on portions of oil stills or other furnaces that are covered by tubes. Company engineers believe "the 3-inch refractory wall with two inches of insulation will take more punishment than the insulating refractory wall, and has about the same heat storage and conductivity as a 9-inch insulating firebrick wall."

Backing Insulation Materials

The use of insulation backing to any great extent in all industrial furnaces and heaters is a relatively new practice (10 to 15 years) in spite of "remarkably good savings which were figured as obtainable." Increased first cost was an important reason for this and was coupled with "rather poor insulating quality of even the best insulators" in earlier years. Other objections have been interference with quick repairs, particularly when it is held in an outer casing, uncertainty as to the effect on the life of refractories, and necessity for more careful furnace operation.

These latter factors became less important as heater design and combustion problems were worked out. Development of oil-heating apparatus with radiant tubes along the furnace walls permitted lighter wall construction. Reduction of wall temperatures resulted from heat absorption by the tubes. At the same time, since the wall radiates heat directly to the closely adjacent tubes, and this radiation depends directly on the wall temperature, the wall should be thoroughly insulated to maintain it at as high temperature as possible, it is pointed out.

High temperature calcined insulating block consisting of diatomaceous earth or silica and asbestos fiber is in common use. Coming into use is the expanded mica or vermiculite type of block although it is not quite as good an insulator. Rock-wool is the cheapest insulation but has met sales resistance because it shakes down. Rock wool or slag wool are the cheapest insulations, but have a tendency to shake down when packed loosely. When made into a plastic or a block, however, they stand up as well as other materials and are easily applied. They stand a temperature of 1800° F. and have a conductivity factor about equivalent to high temperature diatomaceous earth. This type of material is used on many still furnaces.

The diatomaceous silica block weighs approximately 24 pounds per cubic foot and has a typical conductivity at 1000° F. mean temperature of 0.74 B.t.u. Its temperature limit is 1800 to 1900° F. It is often applied against the heated surface as an inner layer in sufficient thickness to reduce the temperature to a point where the lower price, more efficient 85% magnesia may be used for an outside layer.

Expanded vermiculite with some asbestos fiber and clay or similar material weighs 17 to 25 pounds per cubic foot, has a temperature limit from 1000 to 1800° F., and conductivity of 1.16 B.t.u. at 1000° F.

The thickness of the insulation is governed structurally by its hot surface temperature limit or refractory value which, in turn, depends on the thickness of the firebrick or insulating-refractory. The thickness of the refractory is also governed by the heat resistance of structural supports for the refractory and by costs of grades of materials with higher heat resistance than ordinary cast grey iron.

A frequently used specification, according to Evan Rinehart of Johns-Manville in "The Science of Petroleum," is high temperature insulating blocks applied directly against the firebrick or insulating firebrick setting and protected by a ⅜-inch asbestos-cement or steel outer casing supported on the buckstays and light angle framing. The thickness of this block insulation depends entirely upon the operating conditions of the furnace or heater.

The use of insulating refractory has an important advantage as far as the lightening of structure is concerned, it has already been pointed out, and it also has the advantage of minimizing the heat reaching structural supports so that a minimum volume of the higher heat resisting, higher priced materials is required.

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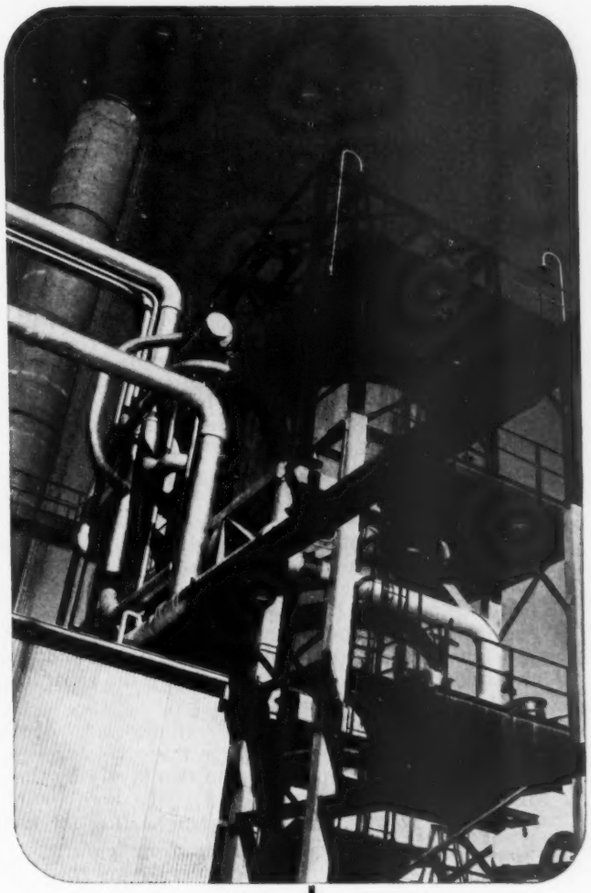

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Waste Products Successfully Burned As Fuel at Oil Refineries

By A. L. Wilson*

This article is a condensation of a paper presented by Mr. Wilson before the Fuels Division of the American Society of Mechanical Engineers at its Spring meeting in New Orleans, Feb. 23-25, 1939.

THE necessity for burning large volumes of nonmerchantable by-product fuels in oil refining has resulted in the design of both suitable burners and furnaces. This problem is particularly difficult because the changing heat content of these fuels makes it impossible to set up performance charts that would indicate true efficiencies.

Burners in which steam is used for atomization have proved so successful that most fuels are burned cold, without fluxing with fuel oil to lower viscosity, thus eliminating many disadvantages in preparation and handling of heavy fuels. These burners are also capable of burning simultaneously five different fuels in liquid, gaseous, and solid form.

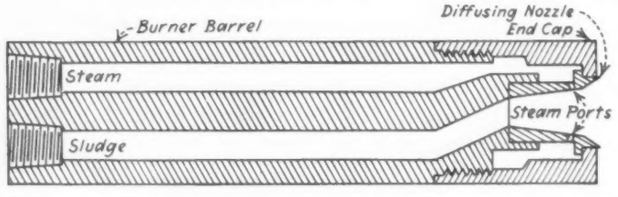
The nonmerchantable fuels include sludges, tars, and tank cleanings. Sludges come from a purification process which uses sulfuric acid to remove tarry or gummy constituents from oil. Compared to fuel oil, some sludges are slow-burning and require high ignition temperatures to produce a reasonable heat release.

The sludges vary extremely in characteristics. Some sludges are readily blended with various tars to form a smooth-working fuel. Some have a heating value as high as 17,500 B.t.u. per pound while in others it is as low as 9000 B.t.u., due largely to varying moisture content. The higher percentage of sulfuric oxide and water vapors in the products of combustion from sludges causes rapid deterioration unless the exit-gas temperature is kept above the dew point.

Tar is a type of sludge from acid refining operations or may consist of distillation residues. Its combustion characteristics are similar to those of sludges. Small amounts of light oils or tars of light gravity, which are a by-product of some treating operations average about 19,000 B.t.u. per pound and may be burned successfully in a separate burner system. Great care, however, must be exercised in handling these fuels, as they usually have a low flash point and high volatility.

Tank cleanings, or "bottoms," consist of oil of varying gravity and volatility, of dirt, water, salts, asphaltic and waxy semisolid materials, and often of iron scale. The heat value will vary greatly, depending upon the proportion of its various constituents. Tank cleanings may be disposed of in liquid form through a grinding operation or may be cooked up with fluxing oil, by means of which treatment, water, salts, and noncombustible solids are settled out.

* Standard Oil Co. of N. J., Bayway.



Cross-section of a typical sludge burner using steam for atomizing

Nonmerchantable coke is usually extremely small in quantity. Such coke is usually a hard nonfriable substance containing a small quantity of volatile matter and varying percentages of sulfur and ash. If burned as pulverized fuel, it must be powdered to extreme fineness to assure complete burning.

Two Classes of Sludge

Sludges may be classed in two groups; those from treating gasoline and kerosine and those from treating heating oils and other heavy products. Light-oil sludges are produced in two ways. In the first, acid oil, lighter than acid tar, settles out from sludge in the kettle or storage tank before processing. In the second, sludge is pumped into a kettle containing hot water where reaction takes place, resulting in a three-layer separation of acid oil, acid tar, and weak acid. The acid tar, the largest percentage in this separation, has the highest acid content and is more readily handled and atomized than the heating-oil sludge. It is the most corrosive of all the liquid residuals, due to the amount of water entrained during the separation of the tar from the weak acid.

Sludges from heating-oil refining are distinguished from those of gasoline by their thick viscous consistency. Also they are not separated into two layers by the addition of water, as the separated acid is too high in impurities. It requires no agitation, fluxing, or heating for handling.

Paraffin sludge, a by-product from paraffin-wax treating causes considerable difficulty in many instances as it becomes entirely solidified at atmospheric temperature. Kept in agitation by steam jets and fluxed with a heavy viscous oil, it is handled successfully by a large eastern refinery. In storage tanks the use of heating coils in addition to agitation keeps it sufficiently liquid at 200-220° F. to be supplied to burners.

Additional waste fuels may be derived from any wastes that have combustible characteristics. These residues consist of gummy coke, heavy tank bottoms, muck, asphaltic residues, and slop, i.e., plastic solids or semisolid materials which are neither solids nor liquids and cannot be pumped. They may be ground or processed by the wet-pan type of grinder. The product of this operation is a frothy liquid containing appreciable quantities of carbon particles up to ⅛-inch or more in diameter. The quantities of these wastes are generally not sufficient at any one time to warrant continuous operation of separate burning equipment. In many instances the cost of disposing of these wastes in any other manner is prohibitive.

Equipment

The storage and handling of heavy sludges and tars present no difficult problem when the usually accepted standards are maintained. Lead-lined tanks, usually equipped with steam jets to provide constant agitation and proper consistency for pumping and burning, are used.

Constant flow through the brass supply and return lines must be maintained in order to prevent stoppage of the system. It is frequently necessary, when shutting down a sludge-burning system to blow out the lines with steam to purge it completely of coke particles which tend to solidify and plug the line.

The pumping quality of sludge is good in most cases and offers no particularly difficult problem in winter or summer. Reciprocating pumps of the type in general use for handling liquid fuels are utilized and in most instances are satisfactory.

The furnace design usually follows the accepted standards for high rates of combustion and steam generation. Satisfactory results cannot be obtained unless the furnace is suited for burning by-product fuels. The design must approach that suitable for good fuel oil by allowing sufficient furnace volume for maximum requirements. The gas must be kept highly heated and afforded time and space in which to burn completely before reaching heating surfaces.

A full complement of indicating, recording, and integrating meters is advisable on high-pressure steam generating units since efficient burning of by-product fuels reduces the amount of commercial fuels required. Combustion controls are usually operated manually due to the constantly changing heat content and varying amounts of the fuels. Indicators are essential to detect instantly the presence of smoke. Smoke indicators used in conjunction with duplex gas recorders have been invaluable in securing maximum efficiency from various fuels.

Burner Requirements

In firing various sludges, the most important factor is good atomization to reduce the sludge to a fine mist for its complete combustion. Steam has been the commonest method of atomization used in developing suitable burners. Factors that usually determine the selection of a burner are: (1) simplicity of design, (2) low cost of installation, (3) thorough atomization of cold sludges, (4) low pump pressure, (5) flexibility and efficiencies on swinging loads, (6) capability of bringing a cold boiler on the line at short notice, (7) ability to burn extremely heavy oils and sludges, and (8) resistance to erosion and corrosion.

A successful burner in one refinery has been designed to burn different grades of sludge at 50 pounds per square inch pressure and at 110° F. temperature. The burner assembly is relatively simple and consists of a steam-and-sludge manifold arrangement at one end connected by about six feet of ½-inch brass pipe to the burner at the other end. Sludge and steam are admitted under pressure through separate valves and pipe arrangements into the burner tip before atomization takes place. The diffusing or atomizing nozzle is located in the burner tip and has a number of steam ports placed tangentially at the end of the nozzle in relation to the sludge stream. Atomization off the alloy metal burner tip avoids excessive wear. Secondary air is admitted around the burner for complete ignition. The flame is a turbulent rotating cone that does not touch the rear wall tubes.

Some important advantages of this type of burner are as follows: (1) pulsation in the furnace is avoided by allowing sufficient mixture of air and sludge vapors for combustion, (2) there is no objectionable smoke to foul the boiler tubes with a carbon deposit and cause a serious loss of capacity and efficiency, (3) the admission of excess air to the furnace is avoided, (4) the required burning conditions, consisting of good atomization and burning in suspension, are obtained, (5) low sludge temperatures and pressures are sufficient, and (6) the plugging of burners, due to large sludge particles reaching the burner tips, is avoided.

Burning sludges cold has many advantages. It is difficult to obtain a metal with sufficient strength, corrosion resistance, and thermal transfer efficiency to heat the sludge in a closed heater. Agitating and heating by means of steam jets is expensive and increases moisture content of the sludge. Agitating sometimes causes the coke, held in a semicolloidal suspension, to drop out in the tank, or in the lines and burners, thereby clogging them.

Conclusions

The true value of residues when burned in a furnace cannot be determined on the basis of calorimeter indications alone. It is difficult to allocate operating expenses, such as maintenance and repairs, to their proper location on steam-generating units that utilize varying proportions of these fuels. Burning by-product fuels may interfere with efficient evaporation from the heat-transfer surfaces, with a corresponding drop in over-all boiler efficiency and rating since the heating surfaces may be coated with a deposit of slag which is not present when standard fuels are burned.

It is practically impossible to secure a reliable heat-unit balance or true boiler efficiency on sludges that are burned as waste fuel. Due to slagging and fouling of the settings, maintenance and repair costs should be apportioned to the various grades of by-product fuels burned. This is accomplished best by establishing a reasonable operating efficiency for the basic fuel and debiting or crediting any loss or gain against the waste fuels or the department that produces the by-product material.

Symposium on Temperature Measurement Scheduled for Fall

NEW YORK, March 4.—One of the most important phases of modern industry is that of measurement of operating conditions and their control. Cognizant of the growing importance of temperature and its measurement in industry, the American Institute of Physics will hold a symposium on "Temperature and its Measurement in Science and Industry" sometime next fall, it is stated.

The symposium will cover many fields, in keeping with the nature of the subject. Its purpose primarily is to (1) co-ordinate the treatment of the subject in the several sciences and branches of engineering; (2) review principles and bring up to date records of recent work; (3) to accumulate contributions for a comprehensive textbook which will be published as soon after the symposium is held as practicable; (4) to reveal the subject as an important branch of physics and (5) to supply to schools the information needed for the improvement of present curricula on this subject.

Those who may be interested in taking part in the symposium should communicate with the Institute, 175 Fifth Ave., New York, as soon as possible, it is announced, and give information about the field of work and the subject which they wish to contribute. These proposed contributions will be co-ordinated with the subjects of a group of papers whose authors have been invited to participate, after which assignments will be made.

C. O. Fairchild, director of research for C. J. Tagliabue Co., is chairman of the steering committee for the symposium. Two men prominent in oil circles are included in this committee, Dr. Gustav Egloff, Universal Oil Products Co., and Dr. Walter G. Whitman, of Massachusetts Institute of Technology. Dr. E. F. DuBois, Russell Sage Institute of Pathology, and Dr. H. A. Barton, of the American Institute of Physics are the other committee members.

Named to Advisory Group

OIL CITY—Louis W. Hodous, chief chemist of Canfield Oil Co., has been appointed to membership in the Technical Advisory Committee, Pennsylvania Grade Crude Oil Association. With a membership of 14 technologists from Pennsylvania refining companies staffs, this committee directs the technical activities of the association.

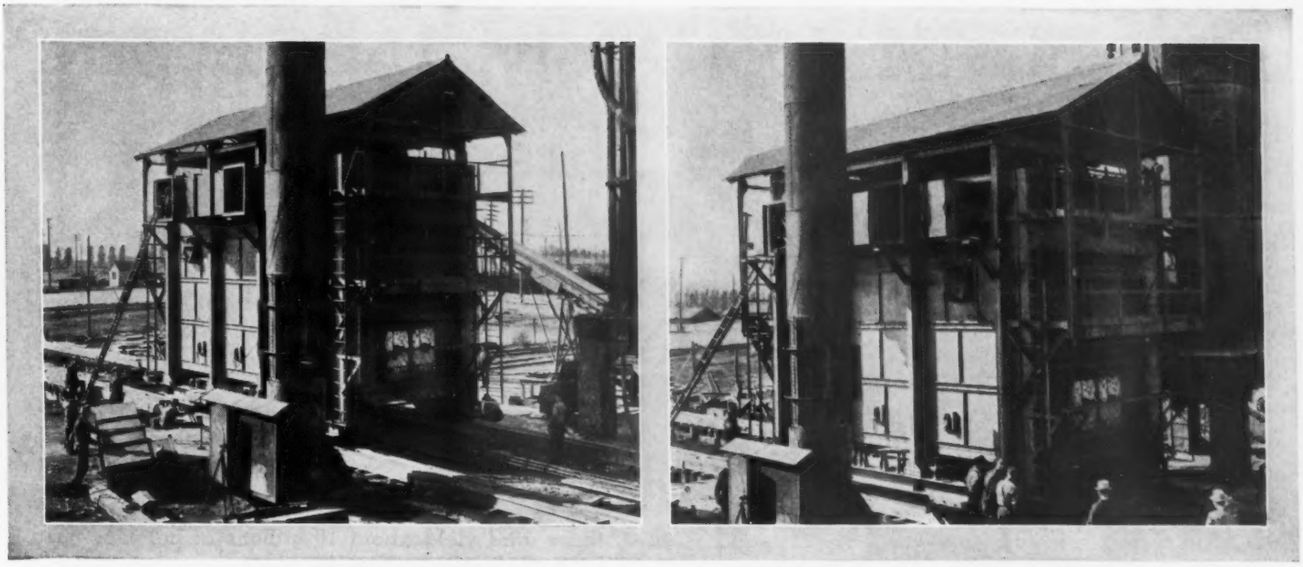
REPLACING AN OBSOLETE HEATER

WITH A LUMMUS

30,000,000 B. T. U. UNIT...

IN 9 DAYS FROM STREAM TO STREAM

To reduce shutdown time, this Lummus Heater was built in an open space behind the existing heater. When completed it was moved to the site of the old heater.



Moving the Lummus Heater, weighing 125 tons, across railroad tracks.

The Lummus Heater in place on the old site. Note the difficulties imposed by the stack and tower between which the new heater had to be placed.

The British American Oil Company was faced with the problem of replacing an obsolete oil heater that was beyond repair, without shutting down the entire plant for the eight to ten weeks normally required to dismantle an old heater, clear the site and erect a new heater.

Engineers of British American chose the Lummus Heater for its adaptability to erection on a temporary site and to movement on to the existing foundations after the old super-structure was removed.

Impracticable as this idea would have been with a conventional type heater, it was perfectly feasible with the Lummus Heater, with its light weight setting, its insulating firebrick tied back to the steel frame work, its hearth above ground and other Lummus features.

In a space 60 feet behind the old heater, a standard Lummus 30,000,000 B.T.U. heater was erected, identical in design and construction with heaters of similar capacity installed under conventional conditions, except for the addition of rails under the columns to facilitate movement.

The new heater was assembled on a timber mat by the regular maintenance crew of the plant in conjunction with their normal maintenance work.

—At 7:00 p.m., September 12th, the fires were cut on the old furnace.

—by noon, September 15th, the old furnace had been removed and the foundation cleared for the new heater.

—by noon, September 19th, the Lummus Heater had been moved into position and grouted in on the existing foundation.

—by 2:30 p.m., September 21st, the Lummus Heater, containing 50 tubes and headers that were salvaged from the old furnace, had been connected to the oil lines and stack, tested out and the fires lighted.

—At 7:00 p.m., just nine days after cutting the fires on the old furnace, the new Lummus Heater was on stream. Lummus heater construction avoids the necessity for prolonged periods of slow firing to cure the setting.

Lummus Oil Heaters, even in the larger capacities are virtually mobile units. They can be erected in the field and moved to an old site. If necessary they can be moved again to another part of the refinery.

If you are operating under the handicap of an inadequate or inefficient heater, Lummus engineers will be glad to study your conditions and work out with you the installation of a modern, Lummus Heater with the minimum interference with operation.

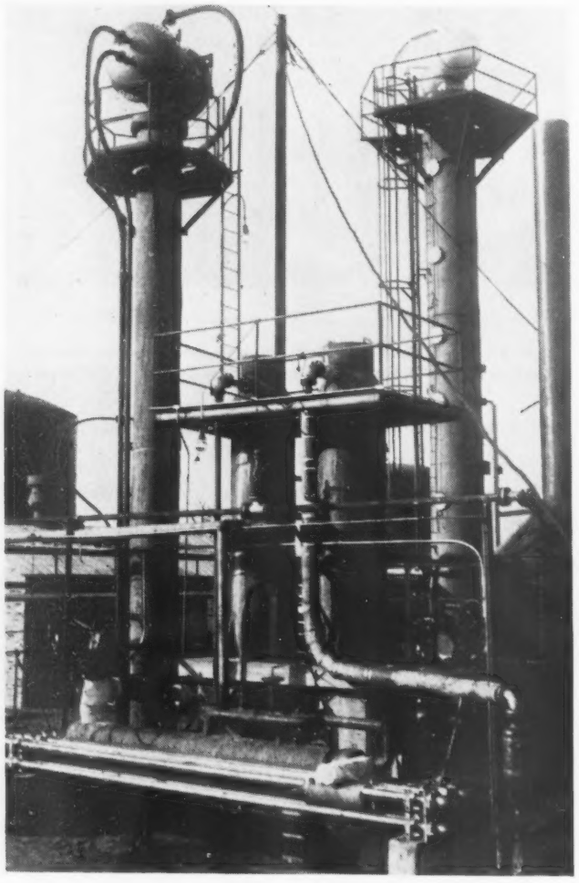
THE LUMMUS COMPANY, 420 Lexington Avenue, NEW YORK, N. Y.

600 SOUTH MICHIGAN AVENUE, CHICAGO, ILL. • 411 WEST FIFTH STREET, LOS ANGELES, CAL. • BUSH HOUSE, ALDWYCH, LONDON, W. C. 2

LUMMUS

PETROLEUM REFINING PLANTS

Johnson "Midget" Poly. Unit Boosts Gasoline Yield Three Per Cent



"Midget" catalytic polymerization unit built by Johnson Oil Refining Co., Cleveland, Okla. The cylindrical heater furnace is in the background; the two parallel catalyst towers are mounted on concrete piers, with the stabilizer tower in right foreground

By Wm. J. Leenhouts*

A new catalytic polymerization unit at the refinery of Johnson Oil Refining Co. in Oklahoma makes 3300 gallons of 82-85 octane number, 10-pound vapor pressure gasoline from waste plant gases. The raw gases contain 45-47% propenes and butenes, and yield about 10 gallons of polymer per 1000 cu. ft. of raw gas.

Catalytic polymerization has met a very definite demand in the refiner's economic and technological picture. The first two plants of the "midget" variety were built in 1938 in Michigan, each handling less than a half-million cu. ft. of gas per day. The exclusive article telling the story of these two units was published in the Refining Technology Edition of NATIONAL PETROLEUM NEWS, (Aug. 10, 1938, page R-371), and created national interest in this new process. In such small units it is especially advantageous, refiners tell us, for the smaller-than-average refinery.

And the smaller refiners are taking advantage of it. Seventeen smaller plants, all or most of them with crude capacities of less than 8000 barrels per day down to 1500-2000 barrels per day and operating cracking units, have built or are building units for operating this process.

THE polymerization process is one of the most important developments in the petroleum industry. A new Universal Oil Products Co. non-selective polymerization unit, the most modern equipment for making high octane gasoline and also increasing yield, has just been put into operation by the Johnson Oil Refining Co. at Cleveland, Okla. The plant was built by the Johnson Oil Refining Co. from plans and specifications furnished by the licensor, the Universal Oil Products Co.

About two years ago the company put in one of the newest Dubbs selective cracking plants by which it was possible to make 70-72 octane, cracked gasoline from topped crude. Now it has made this further improvement of installing a new polymerization plant which will make gasoline of 82-85 octane. This polymer gasoline has a blending value with straight run gasoline of 110 to 120 octane.

A cracking process converts large heavy molecules of fuel oil, by means of temperature and pressure, into lighter hydrocarbons of the gasoline boiling range. The principle in polymerization is just the reverse of cracking. In polymerization the small gaseous molecules are brought together under the proper conditions of a rather low temperature and high pressure so that they will react to make a new and larger molecule of very high octane value and belonging to the gasoline boiling range. In the cracking process gases are produced which formerly were burned under the stills for fuel. In order to produce a high octane gasoline by cracking, a breaking down of the higher molecular hydrocarbons must take place and gas is produced as a by-product. This gas is used in the process of making polymer gasoline.

The cracking plant stabilizer is so operated so as to drive off all C_3 and most of the C_4 hydrocarbons. In our selective type cracking plant the gases from the stabilizer yield about 45% to 47% propene C_3H_6 and Butenes C_4H_8 hydrocarbons. The propene and butene hydrocarbons are convertible in a catalytic polymerization plant. The new polymerization plant will both increase the yield and the octane value of the gasoline. The gasoline yield is increased approximately 3% and this in turn reduces crude requirements about 6% for the same quantity of gasoline.

We will now briefly describe the passage of the gas through the various parts of the plant:

Compressor

A compressor is used to feed the gases to the poly plant at a pressure of about 500 pounds. The compressor is a 6″x16″ single action gas compressor, equipped with adjustable unloader and run by Cooper Bessemer 12″x16″, 50 h.p.

* Superintendent of Manufacturing, Johnson Oil Refining Co.

EVEN AT 20° BELOW...

Rely on a Taylor Mercury-Actuated Temperature Control System in benzol-ketone dewaxing to give smooth, precision Valve Action...

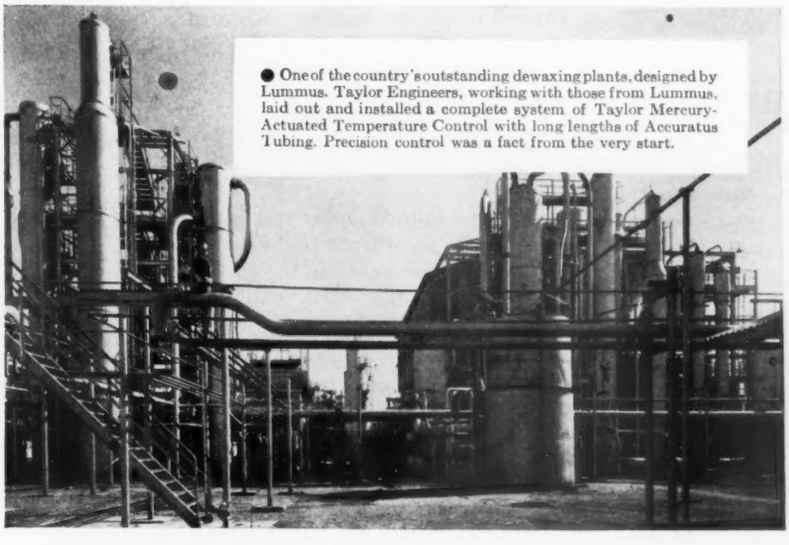
WITH TEMPERATURE CONTROL on the oil leaving the chillers, it's a mercury tube system that can continue to operate smoothly in a benzol-ketone plant to −15°F. or −20°F.

You will find proof in dewaxing plants that Taylor Systems of Temperature Control provide the precision valve action necessary for close, continuous regulation. These Systems use mercury and Taylor Accuratus Tubing, which automatically compensates for varying temperatures along its length, and accurately transmits bulb temperatures to the controlling instrument. A Taylor Fulscope Recording Controller and a Taylor Dubl-Response Control unit give assurance of precision valve action.

It is such uniform, exact control which guards against choked chillers, prevents excessive wax insulation of cooling pipes, saves refrigeration, cuts processing costs and helps to provide maximum yield of high-quality wax-free lubricating oil, and also makes possible an increased yield of scale wax from the reduced distillate with a higher melting point wax.

Here is another example of the adaptability of Taylor Control Systems to the differing needs of the oil industry. You have evidence in leading refineries of Taylor Precision Control helping to establish high performance records on continuous runs. You can see Taylor Instruments performing on some of the most difficult refinery operations and successfully aiding in the maximum production of high quality products with notable money savings.

The quickest and surest way to find out how Taylor experience with refinery control can be of service in your plant is to consult a Taylor Representative. Or write direct to Taylor Instrument Companies, Rochester, N.Y. Plant also in Toronto, Canada. Manufacturers in Great Britain—Short & Mason, Ltd., London, Eng.



● One of the country's outstanding dewaxing plants, designed by Lummus. Taylor Engineers, working with those from Lummus, laid out and installed a complete system of Taylor Mercury-Actuated Temperature Control with long lengths of Accuratus Tubing. Precision control was a fact from the very start.

Taylor

Indicating | Recording • Controlling

TEMPERATURE, PRESSURE, FLOW *and* LEVEL INSTRUMENTS

OCECO Flame Arrestors

Can you afford less positive PROTECTION?

No tight tank protected with an Oceco flame arrestor has ever been lost by fire.

• More than 250,000,000 bbls. of tankage are protected with Oceco flame arrestors. They have Underwriters' approval.. and vertical straight through passages that minimize entrainment.

Oceco flame arrestors are the recognized standard throughout the industry. They are furnished as single units or complete with an Oceco vent valve. Sizes to meet any requirement.

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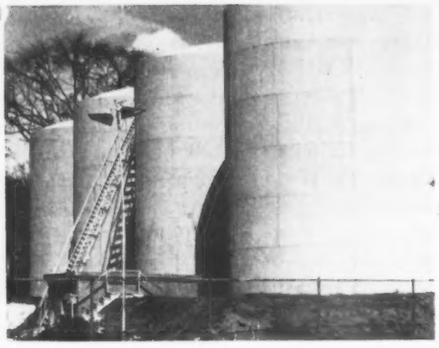


Slow

As Molasses in January?

COLD weather pumping troubles are solved by the Zerwer patented fuel oil or lube storage tank heater. Viscous liquids can be handled faster and cheaper.

First cost of the Zerwer heater is only a third that of conventional steam coils.

Operating cost is lower because less steam is used. Only a small quantity of oil is heated at a time.

Danger of discoloration of lubes is avoided because the oil can be pumped more quickly and is not burned by being kept too long in contact with hot coils.

WRITE FOR QUOTATIONS

A. G. P. ZERWER

Room 601—Central State Bank Bldg.,

WHITING, INDIANA

diesel engine. The diesel engine was chosen as a power drive because of its reliability and dependability. The normal capacity of the compressor is 800,000 cu. ft. per day at a temperature of 150°F., 180 pound suction pressure and 500 pound discharge pressure.

Furnace

The compressor discharges the gas at about 180°F. to the furnace where it is heated to about 325°F. to 400°F. While the catalyst is new the gases are being heated to about 325°F. and this temperature will be increased up to 400°F. as the activity of the catalyst decreases. The furnace is a cylindrical shell 6'0" diameter and lined with 4" of Vermiculite-Lumnite cement insulation. The 2" coil through which the gas passes is spiral in form and is set about 3" from the wall of the furnace and winds up in a nest coil in the top of the furnace. The gas comes in at

Here are the men who put the new poly. unit on stream. Left to right: Geo. Shelton, Universal Oil Products Co. engineer; R. B. Fowler, cracking plant superintendent, and Wm. J. Leenhouts, general superintendent of the Johnson Oil Refining Co.

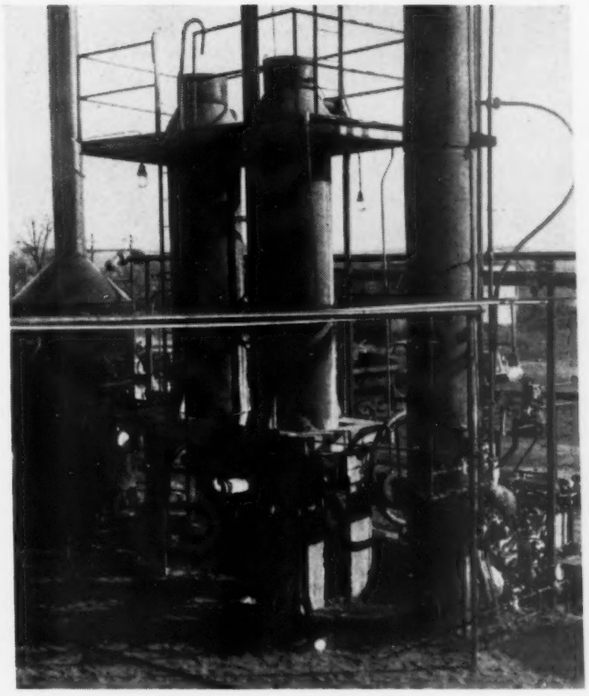
the top of the furnace coil and goes down through the furnace coil counter-current to the flue gases coming up. The furnace heater is equipped with a Mason-Neilan diaphragm control valve, operated by means of a Taylor temperature controller, making the temperature control of the furnace automatic.

Catalyst Towers

From the furnace the gas passes to the catalyst towers. There are two catalyst towers 30" in diameter and 15'6" long by 15/16" wall thickness, good for an operating pressure of 500 pounds at 500°F. The catalyst towers are filled with a solid phosphoric acid catalyst.

In these towers when the gases contact the catalyst the temperature increases approximately 110° due to the exothermic reaction which takes place. The greater part of the reaction takes place in the first tower and the increase of temperature is about 90°. The increase in temperature in the second tower is only about 20°. The temperature of the polymer gasoline after it leaves the catalyst towers is about 440°F. and the conversion is now complete. The towers are operated at about 500 pounds pressure. The elevated pressure gives a high capacity of polymerization and a maximum throughput. The conversion of olefins over the first 30-day period has run about 98%.

The chemical changes which take place in polymerization cannot be confined to a few most desirable reactions.



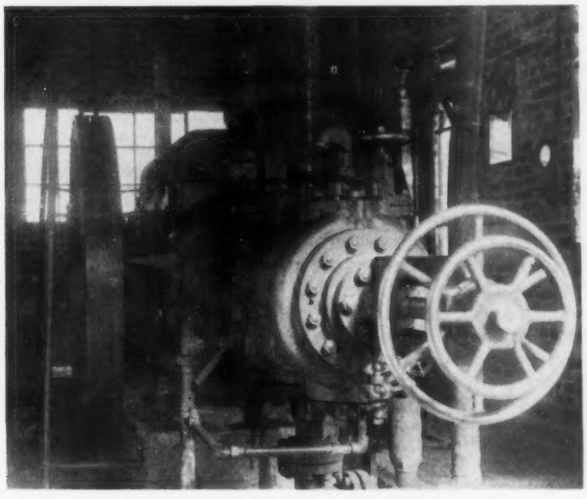
The stabilizer reboiler and condenser are shown in the lower foreground. Note the outside condenser atop the stabilizer tower

Namely, of combining two molecules of C_3 and C_4 series to make a gasoline molecule of C_6, C_7 or C_8 series.

A great number of products may be produced. The most simple of these reactions would be:

Ethylene C_2H_4 plus Propylene C_3H_6 = Pentenes C_5H_{10}
Propylene C_3H_6 plus Propylene C_3H_6 = Hexenes C_6H_{12}
Propylene C_3H_6 plus Butylenes C_4H_8 = Heptenes C_7H_{14}

These simple reactions do not represent even a small part of the reactions that take place. When we consider that the new product formed may be a combination of any two or more of the above simple molecules we can see how complicated the reactions may be. If the conditions of reaction are not carefully controlled the resulting product might even be fuel oil or tar. Although the greater percentage of gas will react to form the desired polymer gasoline, conditions must be carefully controlled; otherwise, there will be an overpolymerization of some of the products going through the catalyst towers.



Gas compressor feeding the polymerizer unit, driven by Cooper-Bessemer 50 h.p. diesel engine

Heat Exchanger or Polymer Condenser

After leaving the catalyst tower conversion of the gases to polymer is complete and the polymer gasoline, together with butane and propane, the unconverted gases, are passed to a Griscom Russell polymer condenser. The hot polymer and gases pass through the shell of the condenser countercurrent to water going through the tubes and is cooled to about 180°F., at which temperature it is sufficiently cooled to enter the stabilizer tower for stabilizing.

Stabilizer

The stabilizer tower is 24″ diameter by 30′6″ long and ½″ wall thickness and is operated at 275-300 pounds pressure. The top temperature of the stabilizer tower is maintained by a Griscom-Russell condenser of the shell and tube type, the hot gases passing through the shell counter-current to the cool water through the tubes. The tubes are of Admiralty metal and are ¾″ diameter. This condenser maintains a top temperature of about 118°F. The bottom temperature of the stabilizer tower is maintained by a reboiler which operates at a temperature of about 270°F.

The fractionation of the polymer gasoline is known as stabilization or bringing the converted and recovered gasoline to the desired vapor pressure. This stabilization is accomplished by operating the tower at a bottom temperature of 275°F. and a top temperature of 120°F. and a pressure of 270 pounds, which is high enough to permit condensation of the desired hydrocarbons with a removal overhead of the light hydrocarbons which would exist as a gas at ordinary temperatures and pressures.

In stabilization the propane gases are driven off from the polymer gasoline, retaining as much butane as seasonal requirements will permit. The polymer gasoline is later mixed with the deep stabilized cracking plant gasoline of 5- to 6-pound vapor pressure and all the normal butane possible is utilized. Polymer gasoline from 10- to 30-pound Reid

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vapor pressure can be produced, according to the product desired and to meet the seasonal demand.

Stabilizer Bottoms Cooler

The stabilized polymer gasoline is drawn from the bottom of the stabilizer through a stabilizer bottoms cooler, consisting of two Griscom Russell C.-fin type sections connected in series. The hot polymer gasoline passes countercurrent to cold water and leaves the cooler at a temperature of 70°F. ready for storage.

Treatment

Inasmuch as the topped crude has a rather small amount of sulfur, no special treating process is necessary. The polymer gasoline is mixed with the other cracked gasoline and is sweetened by the usual doctor process. So far polymer gasoline has shown a gum content of between 2.5 and 3.0 mgs.

Yields

The yield of polymer gasoline is a daily average of approximately 3,300 gallons, or 3%, of 10-pound Reid vapor pressure material, or 5,300 gallons, or about 5%, of 30-pound Reid vapor pressure. About 10 gallons of 10-pound Reid polymer is produced for each 1,000 cu. ft. of fresh gas charged.

Conclusions

1. Polymerization produces a liquid boiling in the gasoline range from gases normally burned for fuel. This polymer gasoline is many times more valuable than the raw material from which it is made. Thus making the process very economical to operate.

2. The polymer gasoline has a very high octane rating and a still higher blending value. Thus producing a very high grade of motor fuel without the addition of tetraethyl lead, or its use in very small quantities.

3. Polymer gasoline not only increases the over-all gasoline yield from crude oil, thus cutting down on crude oil requirements, but also gives a higher fuel value and efficiency to the gasoline produced.

Activities OF EQUIPMENT MANUFACTURERS

W. K. MELLON, vice president of Petroleum Rectifying Co. of California recently returned to Los Angeles from a visit of several weeks at the company's Gulf Coast headquarters in Houston. While there Mr. Mellon made several side trips into Arkansas, Louisiana and Oklahoma in company with **G. B. Hanson** and **J. F. Thomas** of the Houston offices; where the company has a number of Petreco electromatic de-salting plants in service.

* * *

WELDING FITTING. A forged steel socket welding fitting just introduced by Crane Co., Chicago, is featured by a deep socket which is said to provide liberal come and go in the assembling of pipe. On installations where the pipe need not butt against the shoulder at the back of the socket, it is unnecessary for the welder to cut the pipe to accurate length or even to cut it off square. On installations where the pipe must butt against the shoulder, free uninterrupted flow can be assured conveniently, it is said.

* * *

WILLIAM H. FOGARTY, sales manager of power products for the Chicago district of Johns-Manville, has been made assistant to the vice-president of the J-M Sales Corp. He will continue to make his headquarters in Chicago where he has spent 27 of his 30 years with the company.

* * *

HARRY H. WEINING is now heading all research projects concerned with the Copes system of boiler feed control and allied equipment, it is announced by Northern Equipment Co., Erie, Pa. He will report directly to V. V. Veenschoten, vice-president and chief engineer.

* * *

INSTRUMENTS. A new 36-page catalog (No. 1452) presents the entire line of Wide-Strip pyrometer recorders and controllers manufactured by The Bristol Co., Waterbury, Conn. A new 20-page bulletin (No. 514) covers air operated Synchro-Valves for automatic control and new bulletin No. 523 describes the model 6089V single-cam cycle controller. Bristol's three-way leakless pilot valves, with which these controllers are equipped, are also described.

* * * *

SAFETY SHOES. Lehigh Safety Shoe Co., Allentown, Pa., announces a line of steel toe box safety shoes soled with duPont "Neoprene," a synthetic oil-resisting rubber. A new catalog has been issued.

* * *

EXPANSION JOINTS. A new bulletin describing an all-welded, all-steel, packless expansion joint has been issued by Foster Wheeler Corp., 165 Broadway, New York. The design requires no adjustments nor attention when properly installed. A specially designed electric welding process was developed for manufacture.

The joints are made in standard pressure series of 50, 150, and 300 pounds per square inch and a 600-pound series is available. The sizes are from two inches to 36 inches. The temperature limit is generally 750° F. but 1000° F. limit joints are available. Joints of standard design provide for axial movements of ⅜ to 8 inches.

* * *

E. L. DENNIS, inventor of the Coppus-Dennis Fanmix rotary gas burner and chief engineer and consultant for Godchaux Sugars, Inc., New Orleans, for the past 12 years, has joined the staff of Coppus Engineering Corp., Worcester, Mass., as chief combustion engineer.

* * *

WELDING. The Welding of Wrought Iron, a bulletin published by the A. M. Byers Co., Pittsburgh, has been revised to clear up some of the individual problems involved in the variety of materials of construction in use today. The first edition was produced early in 1934. The bulletin contains 16 illustrated letter-size pages.

* * *

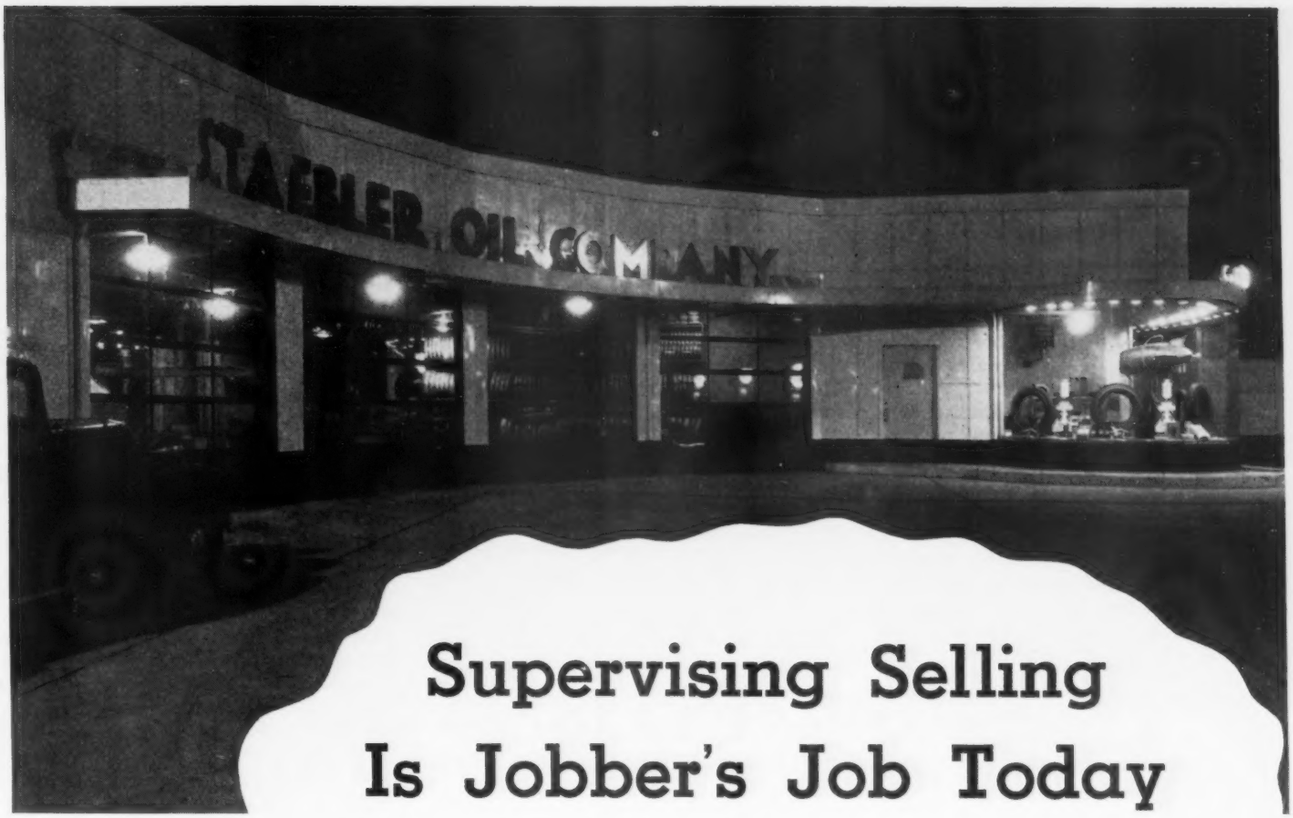
TEMPERATURE INDICATOR. A new switchboard-model temperature indicator with self-contained toggle-type switches for connecting any one of a number of couples to the measuring circuit is announced by Leeds & Northrup Co., 4901 Stenton Ave., Philadelphia.

* * *

PRESSURE STORAGE TANK. A new type of pressure tank for the storage of volatile products such as gasoline or lighter products is announced by Steve Brooks, head of the new New York Tank Co., 140 Cedar St., New York. The new tank design is a vertical cylinder, with a five-foot diameter vertical tube through its center. The top and bottom are the shape of half of a torus, or doughnut, and connected by the outside shell and the inner vertical tube. Forces in the walls of such a tank are balanced so that the tank retains its shape at any pressure, it is said. Size ranges from 1000 to 200,000 barrels are proposed, with outside diameters from 25 to 145 feet, center column diameter five feet for all sizes, and heights from 15 to 87½ feet.

* * *

The Bastian-Blessing Co., Chicago, announces that Robert Poethig is now assistant sales manager in charge of liquefied petroleum gas equipment.



Supervising Selling Is Jobber's Job Today

Built six years ago, this station of Staebler Oil Co. at Ann Arbor, Mich., is an example of far-seeing planning. "If we were building it today, we wouldn't change it a bit," says the company

By V. B. Guthrie
N. P. N. Managing Editor

Correlating the merchandising efforts on all items sold at his service stations with a general, over-all selling program, is the most important function of the jobber in this day of dwindling margins on gasoline, according to a successful Michigan jobber.

Modernizing the station, "attention-compelling" lighting, merchandising displays of accessories and other profit items, and a dozen other factors enter into the picture.

How this Michigan jobber supervises selling at his stations, checks results and follows through — even to supervising the supervisors, is told in this article.

The oil jobber today is the MANAGER of many small merchants, rather than THE merchant himself.

The jobber has the warehouse, from which he stocks the tanks and shelves of his dealers and his own stations, if he has them.

The jobber today, more than ever, must use his management skill to develop the merchandising abilities of the small merchants — his dealers — who are dependent upon him.

This is not necessarily a new concept of the function of the independent oil marketer jobber but Paul R. Kempf, of Ann Arbor, Mich., general manager of the Staebler Oil Co., believes it is a concept that needs sharpening in most jobbers' minds, in order for them to have more profitable gasoline and oil outlets.

No longer can these outlets run themselves. The dealer is the shopkeeper but the oil jobber, who stands behind him, is the general manager, merchandise manager, sales promotion manager, window display manager, advertising manager—in short the oil jobber is the man who tells the dealer how to be a better merchant.

This may sound like old stuff, says Mr. Kempf, but it is all the better for constant retelling. Not a dealer who will not profit from being better educated by his jobber, any more than there isn't a jobber who cannot profit by listening to those who have a wider and more expert view of marketing management, he believes.

Jobbers HAVE dealers, says Kempf but he asks how many jobbers are busy ALL THE TIME trying to TEACH those dealers better store keeping and better selling?

With the narrowing margins for jobber and dealer today Kempf says the jobber must do this managing job or both he and his dealers are "out."

Kempf follows this management principle in his own business conduct. He personally — Paul Kempf — calls frequently on his dealers so that they — as "the boss" of their businesses are talking their problems over with him as "the boss."

By this close contact he aids the dealer in his selections of merchandise. He does not just sell him accessories but he advises with him on his purchases from the Staebler Oil Co. and from manufacturers direct for lines Staebler does not handle.

Kempf calls with the district manager or representative of the accessory line and helps his dealer — Staebler's dealer — to get the most out of the accessory man's assortment of goods and merchandising aids. How much good sales material goes over the heads of the average dealer, or is tossed into a dark corner of the station, asks Kempf for lack of proper interpretation by someone who inti-

mately knows the dealer and his neighborhood problems?

He recognizes that more and better sales promotion material is supplied by the large oil companies and the manufacturers of automotive and other merchandise which the dealer handles than ever before and that good personal sales help is available, through demonstration salesmen who will come to the dealer's place of business to teach him how to sell their lines and through sales meetings arranged for the dealers. He likewise believes that a chief function of the jobber today is the correlating of these sales helps into his own sales program, which has the best opportunity for success because it can be closely and personally supervised by the jobber, the man to whom the dealer should turn first in his efforts to build his own business.

In an interview with an NPN reporter, Kempf discussed the general conditions the independent marketer faces today. First and most important is the fact that gasoline gallonage has dropped at the average outlet and that the margin for the jobber on this product has declined and probably will decline more. That makes it necessary for the jobber to look around for other merchandise and services his company can handle at a profit. That's the jobber's job; he'll get lots of advice on the subject but he will have to be the one to decide in what way the company will expand its merchandising lines.

Second, is the fact that in all probability most of the retail outlets of the jobber, including his own stations, are leased out. His relationships with the lessees even of his own stations are different than with the crew of a company owned and operated station. The supervision of those lessee-operated stations should be done by the jobber himself as far as possible, Kempf believes. The lessee, like any customer, likes to do business with the head of the company. When the jobber does his own supervising, he gets the lessee's and the dealer's story firsthand and those individuals get his sales ideas and policies first-hand. More satisfactory all around, Kempf believes.

Third, is the fact that, with the jobber's service stations selling wider lines of merchandise than before, and with the local and district sales supervisors for the companies making this merchandise, anxious to stimulate the sales of their merchandise through the jobber's stations as well as other outlets, the station operators have more sales material thrust upon them than ever before, as was referred to earlier in this article.

Unless the jobber actually exercises his supervisory functions properly, this third condition can easily lead to uncertainty and demoralization among his own sales force and his dealers, Kempf believes. The jobber who is truly managing his own business will keep the reins in his own hands, he says. If sales meetings are to be attended by his station men, at which representatives of suppliers of his merchandise are to talk, the jobber should be there too in person, he believes. Sales promotion material is far more effective, he has found, when it is taken to the station by the jobber himself and that jobber tells the station men of its value and how it is to be used. Where representatives of his lines are at the station demonstrating how their merchandise can be sold if it is stressed in the station men's sales talk, it is up to the jobber to decide finally how much effort is to be put into that as against sales effort for other lines — maybe for the jobber's motor fuels and motor oils.

A real ceremony was made of the opening of the Staebler Oil Co.'s newest station at Brighton, Mich. In the foreground is Paul R. Kempf, general manager. The attractive young lady cutting the ribbon is Miss E. Patricia Kempf, Paul Kempf's daughter. To the right in work clothes, just behind the tape, is M. E. Rylander, who operates the station

IN SHORT, it is through the jobber's supervision that his sales program can be properly correlated as among his various lines and a distinct management function of the jobber is to make such supervision. When he has his own ideas worked out and established on a practical basis, Kempf has found, some of the supervision can be deputized to assistants but it is up to the jobber to supervise the supervisors pretty closely.

Kempf said that he believed that 90 per cent of the jobber's problems in connection with his operation of service stations today have to do with personnel there, regardless as to whether the station is leased out or company operated and that those problems can best be worked out by the personal supervision and contact of the jobber with the station men.

Kempf believes that some oil marketers today are inclined to forget profit for convenience; that is they take on lines which are easy to sell and where the margin of profit is not as large as in other lines which take real sales effort. It is through developing the spirit in the sales force that real sales effort can be developed, he finds, and it is through constant supervision that the station men are directed to put their efforts into profit lines.

The Staebler Oil Co. which has

Dubbs refiners—tell them

"After reading 'BETTER BUSINESS FOR INDEPENDENT OIL JOBBERS,' any man who cares would want to know more about Dubbscracked gasoline and the names and locations of the refiners who make it"—*A letter to Universal from a Texas jobber*

WHAT luck for Dubbs refiners when jobbers want to know more about Dubbscracked gasoline

What a break for jobbers when they get Dubbscracked gasoline to sell—and what luck for their customers

You get twice the break if you sell it by its right name—Dubbscracked gasoline Then your customers will know why it's good

They'll remember where to come back for more

Universal Oil Products Co
Chicago, Illinois

Dubbs Cracking Process
Owner and Licensor

around 75 sales outlets in the territory around Ann Arbor as headquarters, seems to have at least three policies which help to improve the sales efforts at their stations, aside from striving for a high quality in personnel. The company operates directly two of its stations, partly because of conditions at the location of these stations and partly because it can use these stations as experimental laboratories in selling. One of these outlets is at the same location as the company's headquarters offices — one of the old time large homes in this college town, which was remodeled to give office space and to provide for a pump island in front and service departments at the side.

First, at each station, whether company-operated or leased, a manager — he is not just an attendant — is in charge and is held responsible for the station's performance at all times, whether he is on the premises or not. This individual is trained to assume managerial duties and responsibilities in his handling of the station.

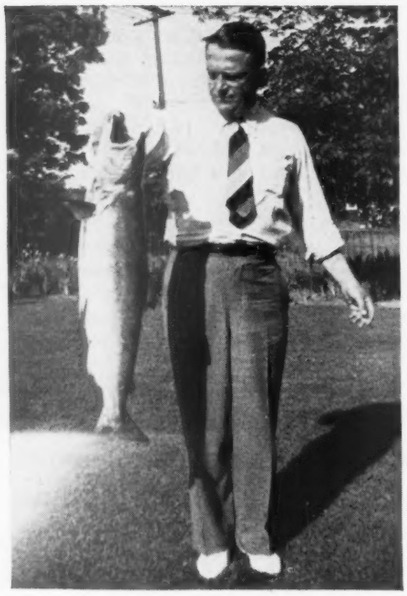
Second, a meeting of the Staebler Oil Co.'s supervisors for each district of its marketing territory is held in Kempf's office the first thing every Monday morning. There is no formality to these meetings and they are gotten out of the way before the week's business really starts. At these meetings Kempf brings up everything he has noticed the past few days in salesmanship and service that need attention, and new sales programs and policies are presented to the supervisors.

THIRD, the company recognized some years ago that the trend in service station operations was towards handling more lines of merchandise than gasoline and motor oil, and its stations were designed to provide convenience both for the customer and the station salesmen. The company started then to make its stations "stores".

One other method which Kempf has studied as a means for improving the sales effort at the Staebler company's outlets is to employ a "shopper", as is generally practiced at department stores. This individual, preferably a woman, and whose identity of course would be unknown, would visit the stations as a purchaser of gasoline, oil and any items or service carried.

The reports of this shopper on the sales approach of the station salesmen, service given and so on would be made confidentially to Kempf and he feels would be a real help in finding the weak spots in his organization. The efforts of such a buyer also need not be confined to the company's own outlets. Buying trips could be made to stations of other concerns to compare their sales effort with that at his own stations, he believes.

The Staebler Oil Co.'s policy in building and operating service stations was described in a recent article by Kempf which appeared in the Dixie Marketer, the publication of the Dixie Distributors Inc., of which the Staebler Oil Co. was an early member. Kempf for several years has been a leader in promoting the interests of the Dixie movement. In this article, entitled "Good Stations Pay", Kempf stated:



Paul R. Kempf, general manager of the Staebler Oil Co., Ann Arbor, Mich., with a land-locked trout caught in a Michigan stream

"In 1932, after an exhaustive survey which included consultation with leading architects, the Staebler Oil Co. decided to 'jump the gun' and launched a program of construction based on extreme and modern design and built around the theory of efficiency in operation, economy in maintenance, cleanliness in appearance, drive-ways with approaches of spacious dimensions, facilities for good displays of accessories, and 'attention-impelling' lighting for night operations".

The stations were designed, it is set forth, so that the fewest number of steps are required to give speedy and complete service to the motorist. The extensive use of glass makes it possible for the attendant to see the customer's approach to the pump island from almost any point in the station building.

The equipment at the Staebler Oil Co. stations is classified in this article by Kempf as follows:

(a) Not less than four nor more than six computing pumps at each station.

(b) High-pressure greasing equipment of the latest design capable of lubricating all types of cars, trucks and motor vehicles.

(c) Where the installation includes one lift, the free-wheeling type is used and where two lifts are installed, the drive-on type is used in conjunction with the free-wheeling design.

(d) Full equipment for the servicing of batteries, including a battery charger which is installed in each station unit.

(e) An attractive tire display for the sale of new tires and a full line of tools and accessories for handling complete tire repairing service is installed.

(f) Where location warrants the installation of car washing equipment, complete units of high-pressure nozzles and polishing equipment with hot and cold water are available.

(g) In two units where motor service to the extent of carburetor adjustments and electrical repairs is available, they have installed a motor analyzer of the latest design.

FOR the convenience and comfort of both customers and the station men, the newer stations of this company are entirely insulated and heating plants are installed which heat all departments of the station and also provide ample supplies of hot water.

Particular attention has been given by the Staebler Oil Co. to the location, arrangements and fittings in the women's rest rooms. The entrances are outside and are not conspicuous from the drives. The largest station has a separate "powder room" and is equipped with a large mirror, dressing table and several chairs. While the women's rest rooms in other stations do not have separate "powder rooms", they are large and equipped with dressing table and chair wherever possible, and have large mirrors on the walls. All rest rooms are well heated and all carry fixtures of the latest design, with bubble fountains on the wash bowls, making it unnecessary to carry the paper cups which litter the floor of many rest rooms.

Driveways and approaches to all the stations are as wide as the property will permit. In the case of the company's latest station, on the main highway at Brighton, Mich., one approach to the drive measures 180 feet at the curb and the other 160 feet, with the drive 40 feet wide at the narrowest point. At this and other recently constructed stations, the drives will permit a car to make a complete turnaround at any point.

The new station units are of steel enamel construction, with a large bay window for the station sales room. This was originated by the Staebler company and the details of design worked out by the architects.

This type of window was designed,

Kempf states, "to accentuate the fact that the Staebler Oil Co. not only advertised one-stop service but was actually in a position to take care of each and every want of a motorist, regardless of what it might be. It is interesting to note that accessories which used to be a by-product with our company are today an important factor in our profits."

Kempf stated that, after experience with almost every type of station lighting available, the company felt it "had reached the zenith in service station lighting effects" in its most recent unit which contains four of the largest size mercury flood lights which give a day-light effect hard to describe. While this station has been open only a short time, its night sales volume has increased approximately 32 per cent, Kempf stated.

Another reason why the business at this new station has been so good is that the company announced special sales on automotive merchandise, starting on the opening day. This station is located in a small town with only a few hundred car owners at the most and depending for a good share of its business on transient trade. However, it was desired to secure as much of the local trade as possible and to get residents of the town into the habit of patronizing the new station, although the company had had a station there before and operated by the same individual.

Accordingly, a wide list of automotive merchandise was advertised and its prices plainly shown. Some of the items advertised were real "loss leaders", such as car heaters at $3.95, winter fronts at 49 cents, polish cleaner for 31 cents and a few other items. However, many of the items advertised carried their regular prices and the company made sure that higher-priced makes of the same item were shown in the station display along with the make advertised at the bargain price.

The Staebler Oil Co. is selling at all its stations a unit oil heater that operates on kerosine or a No. 1 grade heating oil. These sell at from $55 to $135 and can be bought through the oil company on time payments. They have a good talking point in their manner of air circulation. One of these units is kept on display at each station.

Additional Storage and New Building Planned by Michigan Jobber

WAYNE, Mich.—The J. Austin Oil Co. is planning improvements for its bulk plant here this summer with 75,000 gallons additional storage and a new two-story office building. Company offices are to be on the first floor, and the second floor will be for a sales meeting room.

Ad Tells Jobber's Story In Michigan Price War

A gasoline price war, raging at several points in Michigan's Upper Peninsula, has been taken directly to the dealers and consumers by Lake States Oil Co. of Iron Mountain, Mich., with large advertisements in daily papers of Marinette and Menominee appealing for fair margins, fair prices for quality goods. Commenting, George C. Newton, treasurer of Lakes States company said:

"Service stations selling one of the major brands had cut prices 0.6 cent per gallon, which would bring their retail margin to 3.5 cents from the currently existing figure in that area of 4.1 cents per gallon. It was said that this cut was secured by pressure brought to bear on the leased stations of the particular major oil company in question and is being opposed by the dealers association of the two cities which have so far maintained the regular price."

ATTENTION PETROLEUM RETAILERS

If You Want Fair Margins—Fight For Them!

YOUR CUSTOMERS WANT:

HIGH QUALITY PRODUCTS
FIRST CLASS SERVICE
FAIR PROFITS FOR YOU

SO DO WE

YOU CAN'T PAY GOOD WAGES—GIVE BEST SERVICE IF YOUR MARGINS ARE CUT. WE CAN'T AFFORD TO SEE YOUR MARGINS CUT

BECAUSE:

WE WANT TO SEE YOU SUCCESSFUL
WE WANT SATISFIED CUSTOMERS
WE WANT EVERYONE SELLING GASOLINE TO HAVE A FAIR CHANCE WITHOUT ANY MAJOR OIL COMPANY INTERFERING IN RETAIL MARKETS.

AFTER ALL—IF ANY MAJOR OIL COMPANY WANTS TO CUT THE RETAIL PRICE OF GASOLINE—LET THEM FIRST CUT THE TANK CAR PRICE THE SAME AMOUNT. THAT'S THE WAY TO GIVE A FAIR—HONEST—SQUARE DEAL TO ALL!

We Pledge Whole-Hearted Support

TO THE PETROLEUM DEALERS OF MENOMINEE AND MARINETTE COUNTIES AND ELSEWHERE IN THEIR EFFORTS TO MAINTAIN

HONEST AND FAIR MARKETING POLICIES
THE BEST OF SERVICE
HIGH QUALITY OF PRODUCTS
REASONABLE AND FAIR MARGINS

When the so-called IOWA PLAN for retail marketing was initiated by a major oil company—it announced it would discontinue the establishment of retail prices for gasoline—that the retailers would fix the retail price—JUST AS IN EVERY OTHER BUSINESS!

WE ADOPTED THIS SAME POLICY—SO DID PRACTICALLY ALL OTHER LEADING OIL COMPANIES!

We Have Kept Our Word and Will Continue To Follow This Policy As Long As The Iowa Plan Stays. INSIST THAT YOUR SUPPLIER DOES THE SAME IF YOU WANT FAIR MARGINS—FREE MARKETS.

Phillips 66

OUR COMPANY BELIEVES IN: FAIR MARGINS For Retailers

That it is not fair play if it should sell its dealers gasoline and then go out and peddle gasoline to the retailer's customers at tank wagon prices. WE WON'T DO IT. No Company Needs To.

THAT A SUCCESSFUL AND SATISFIED DEALER CUSTOMER IS THE ONE WE WANT

Don't Let Any Oil Company Scare You With The BOGEY MAN of CUT-RATE COMPETITION. Cut Price Gasoline is Mostly CUT QUALITY TOO! YOUR THIRD GRADE IS BETTER—MEET CUT RATES THAT WAY. JUST TELL YOUR MAJOR OIL COMPANY SUPPLIER TO STOP SELLING HIS LOW GRADE GASOLINE IN TANK CARS TO MR. CUT RATE.

We Believe In The HIGH QUALITY of Our PHILLIPS "66" PRODUCTS

Perhaps That's Why We Also Believe in High Quality Sales Methods

LAKE STATES OIL COMPANY

PHILLIPS PETROLEUM PRODUCTS
Phill-Up With PHILLIPS "66" For SATISFACTION EVERY DAY IN EVERY WAY

Oil in Missouri?

IF Oil is found

It would change Marketing Picture

By Allen S. James
N. P. N. Tulsa Bureau

Not a drop of oil has yet been found in the Forest City Basin, the tri-state area centering around the Missouri river; many competent authorities believe that the chance of a "strike" is very slim. Nevertheless, this Missouri-Nebraska-Iowa area is the scene of an intensive leasing play involving something like three million acres.

Though the prospects of finding oil in paying quantities be slight, the mere possibility is interesting to the army of midwestern jobbers. The prospect of new oil fields, with new refineries opening up still larger territories to low-cost truck and barge transportation and the consequent effect on marketing, merits telling. Here is the story — with a look into the future, hinged on "if-they-do-find-oil."

DRILLING CREWS early this spring will start wildcat tests at several locations in the Forest City Basin, that geologic formation which underlies a good part of northern Missouri, some of southern Iowa and some of northeastern Kansas and southeastern Nebraska.

Thus actually will be started, in the wake of an active leasing play in 1938, a search for oil, which if successful, may change the petroleum marketing picture in the Middle West.

No one knows definitely as yet if any oil at all will be found. There is some controversy within the industry itself on the area's possibilities. But there is no harm, meanwhile, in trying to look as far down the road as possible, just in case oil is discovered in this area.

It is necessary first to outline roughly the territory where leasing has been carried on so vigorously in the past three or four months.

There has been both block and checkerboard leasing in virtually every county in Missouri north of the Missouri river, with the greatest activity centered in the west half of that area. Leasing has been active in each of the counties that form the southern boundary of Iowa. The five or six counties that form the northeast corner of Kansas have been the scene of heavy leasing, and some four to six counties forming the southeastern corner of Nebraska have been combed thoroughly by "lease hounds."

No one knows exactly just how many acres actually are under lease in that area but the conservative estimates place the total at somewhat over 3,000,000 acres.

This has been one of the biggest and fastest leasing plays in the industry's history based almost entirely on surface geology and unsupported by any actual show of oil or any recent exploratory tests in that general area.

This does not mean, however, that the industry has such great faith in that surface geology. That area has been known, and has been tested off and on, for a great many years without success. Geological departments of many oil companies even now refuse to recommend the area, but the leasing has continued.

The reason for the leasing splurge is primarily fear of being left out, many observers say.

The Illinois Basin is still fresh in the minds of all oil men, and particularly those who could have—but didn't, get into that play; they are afraid to stay out of the Forest City Basin play because it carries that magic word—"Basin," it is said.

This is evidenced by the fact, many observers have pointed out, that many of the large companies which have taken sizeable blocks in the basin have

"WHAT GOOD IS A GIRL IN EVERY PORT?..."

Ask your supplier for

NEOPRENE

smooth-bore dock hose

... OR WRITE US FOR A LIST OF MANUFACTURERS

...This smooth-bore neoprene hose unloads so fast I hardly get time to go ashore!"

"SAY, I might as well chuck my shore-going duds overboard. Dock in the morning . . . sail that night. That's the sort of turn-around we get with this neoprene hose.

"But maybe I shouldn't squawk, after all. A quick turn-around pays the owners in less demurrage and more trips a season. And the owners, of course, pay me.

"For a cargo hose, I've got to admit this smooth-bore neoprene is a honey. Stays in good shape a lot longer than ordinary hose. It's lighter and easier to handle, too . . . less likely to kink . . . and rigging the boom's a cinch! And say, an 8-inch smooth-bore neoprene hose will handle as much oil or gasoline as a 10-incher of the old kind.

"As I said, neoprene hose sort of makes things tough for fellows who want more time in port. But it's great stuff for the folks who actually wrestle the hose... yes, and for the folks who pay the bills."

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swept through the area gathering in leases and then sent their geologists and geophysical crews into the territory to check, test and report what they think the company has acquired in the way of possible oil reserves in another one of those basins.

Only production in Missouri at present is from very small pools found along the Kansas-Missouri border in the vicinity of Kansas City and south. None of the wells are much in excess of 60 feet. The production has been there for some time and, based on Bureau of Mines report for 1938, amounts to about 66 barrels daily average at the present time.

But suppose somewhere in this Forest City Basin—in Missouri, Nebraska or Iowa—considerable oil production is found? Since a sizable amount of acreage is under lease by independent operators, a few refineries, probably small ones at first, are likely to be built. That is the history of every other pool discovery in the southwest.

It is easy to see the advantages those refineries would have over the plants in the present Oklahoma-Kansas-Missouri refining district, as well as in inland Texas and the Louisiana-Arkansas districts.

To the west and south is the Missouri river on which petroleum products already are moving by barge, and on which the movement will be expanded from Kansas City northward up the river as soon as government dams now under construction have been completed. That work is expected to be finished along in 1940 or 1941.

Then to the east the territory being explored is bounded by the Missouri river on which a huge volume of petroleum products already is moving, as far north as Minneapolis and St. Paul.

Any refineries that might be located in the Forest City Basin would be much closer by truck transport haul to the heavy consuming centers of Iowa and some portions of Nebraska and Minnesota than are the Kansas refiners. Much of Missouri would be accessible by truck transport shipment, as well as some parts of northern Illinois. "Truck-compelled" rail rates naturally would follow, giving those as yet imaginary refiners another advantage over plants farther south in the Mid-Continent.

Thus it can be seen that any Basin refinery would have the edge on all other refiners, even the pipeline groups, in the matter of transportation costs and accordingly would have the inside track to bid for the business of the army of independent jobbers through the heart of the Middle West.

It does not stretch the imagination to see the Mid-Continent refiners, particularly the all-rail shippers, being bottled up still closer to their back- and front-door markets and, if oil production should be found in this area in great volume, a mushrooming of small plants somewhat similar to the experience of East Texas. Particularly could this be true if it should develop that much of the leasing that has been done by individuals reportedly for major companies actually should turn out to have been done for independent operators who decided to hold onto the leases rather than turn them to the major companies.

Majority of the leases in the Forest City Basin were obtained at such low cost that it definitely was a "poor man's play."

Basins have become more popular in the oil industry as a result of the developments in the Permian Basin in Texas and the Illinois Basin in that state. A basin, explained briefly, is a large depression that was created in some geologic period and which later was partially or wholly filled with sediment. Along the floor of the basin there may be, as in the case of the Illinois Basin, various sized upthrusts or "mounds" which may have provided a trap for oil and gas. These floor irregularities are what the operators generally try to tap first in their search for oil.

Marvin Lee, a Wichita, Kansas, geologist, generally is credited with having started the present activity in the Forest City Basin.

Lee spent last summer poking around in railroad cuts, checking structures and outcroppings by descending into water wells and in WPA gravel pits, and checking on what geology there was on record in connection with the spasmodic attempts in times past to find oil in that general area.

For there have been attempts made previously to find oil. One geologist told the writer it would be almost impossible to get logs on all the wells that have been drilled, either for water or for gas or oil, in the general area for that work had been done off and on for a great many years. Nothing of consequence, however, had been done, except on the Kansas side of the Basin, in the past two years.

Lee reported his conclusions to his associates in Wichita and they acquired a large block in northern Missouri. The previous tests, it was said, had not been drilled deep enough, and that others went deep enough but not in the right places. So, the leasing campaign got under way, paced by lease brokers.

Hundreds of leases were obtained in the early stages at extremely low figures. Reports generally were that they were obtained by paying from nothing to $1 a farm and 10 to 25 cents an acre rentals.

Leasing crews swept through the territory, concentrating first in the territory north and east of St. Joseph, Mo., then gradually spreading farther afield.

The result today is an "oil boom" in many of the towns within the Basin area although there is no oil there. Some of the towns, like St. Joseph, have active chambers of commerce which have gone after the oil industry's business-to-be in a large way by doing all they could to curry the favor of the companies and individuals known to be active in the Basin. There

are so many scouts there now that they have formed an association.

Gradually the identities of the major companies which had become active in the area began to be established. At the present time the Carter Oil Co., a Standard Oil Co. of New Jersey subsidiary and one of the developers of the Illinois Basin, is credited with being the largest holder of leases in the area, with reports current it has signed up approximately 1,000,000 acres.

Other major companies reliably reported as being interested are the Magnolia Petroleum Co., a Socony-Vacuum subsidiary; the Ohio Oil Co., Sinclair Prairie Oil & Gas Co., Phillips Petroleum Co., Shell Petroleum Corp., Pure Oil Co., and Skelly Oil Co.

There are scores of smaller companies and individuals holding various sized blocks and checker-boarded districts. Many of them have moved in from Texas, Kansas, Oklahoma and Illinois.

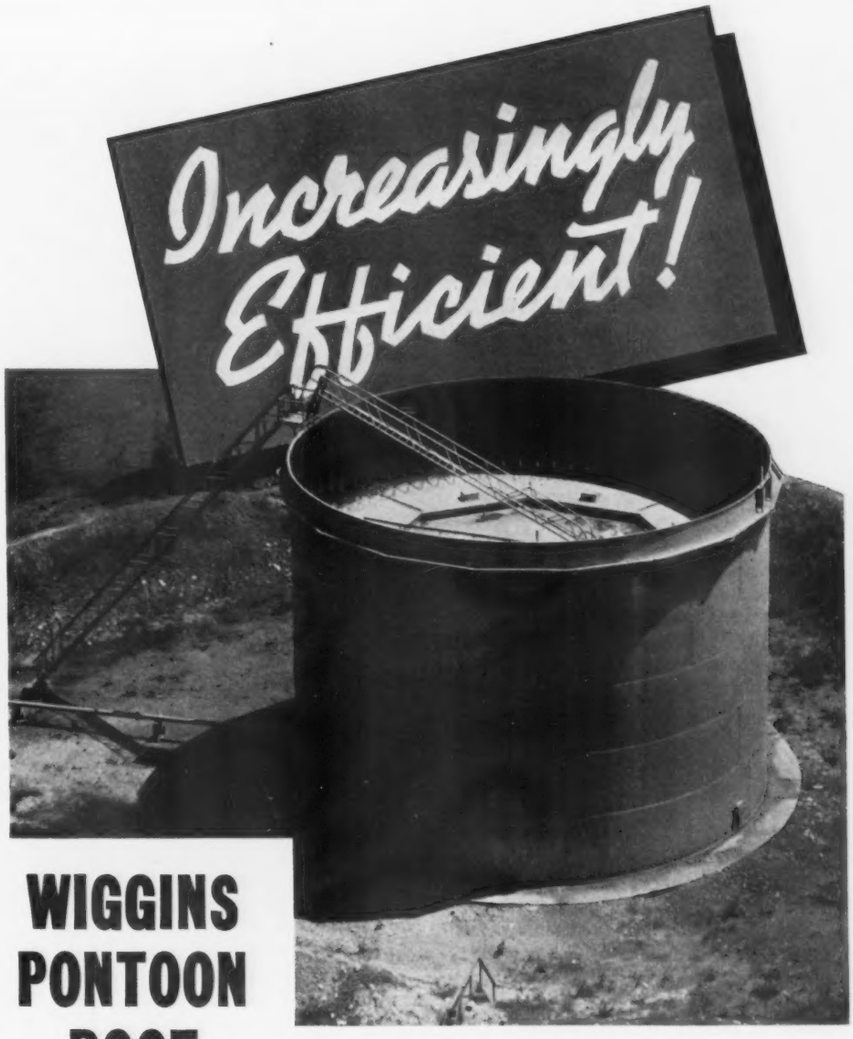
While sizable quantities of the leases were obtained at figures listed above, the play finally became so intense that some of the later leases cost four to eight times as much as the first ones.

In rechecking their lease holdings some of the major companies are reported to have found themselves "vulnerable" in much the same way they were in Illinois. What they had figured at first were completely leased blocks have in some instances been found to have "open spots" which have been leased by other operators. Efforts are being made to close those blocks.

It will be recalled that an orderly development of their properties in Illinois was checked for some of the larger operators because of church lot, fence corner, roadside and cemetery lots which had escaped the operators' leasing crews. Wells on these small tracks, often allowed to produce wide open, caused some of the companies to produce their offset wells wide open in self defense.

It is believed in some quarters that the development of the Forest City Basin will be relatively slow even in the event oil is found almost immediately, a situation which is not expected to occur. Most of the major companies holding leases in that area, it is pointed out, also have considerable established production in Mid-Continent states, much of it held back because of proration.

There remains to be seen how the area will be developed if oil is found. As far as taking the oil from the field, the Sinclair Prairie Oil Marketing Co. and the Standard Oil Co. of Indiana probably would have the jump on the other operators since each has a crude oil line running through a portion of the Basin from the Mid-Continent to Chicago. Every major crude oil trunk line from the southwest to the east, however, crosses Missouri and the owners of these lines would have to string pipe only a small distance farther than the two previously mentioned in order to take from the Basin area.



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BECAUSE its design has been kept continually modern, the Wiggins Pontoon Roof has become an increasingly efficient aid in preventing waste of vapor from oil storage tanks. Recent improvements in design include the use of long shoe seals in butt welded tanks and secondary seals on pontoon roofs for lap welded or riveted tanks. Both of these improvements add even greater efficiency to performance which has proven successful by users all over the world.

Wiggins Pontoon Roofs are primarily recommended for working tanks that may be filled and emptied more than six times a year. They are also especially well suited for blending tanks handling any grade of gasoline that does not boil at ordinary atmospheric temperatures. We will be glad to give you quotations, estimates of savings possible, and data on storage costs. Address our nearest office.

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New York	3345—165 Broadway Bldg.	Houston	2919 Main Street
Philadelphia	1614—1700 Walnut Street Bldg.	Tulsa	1607 Hunt Bldg.
Boston	1516 Consolidated Gas Bldg.	San Francisco	1060 Rialto Bldg.
Detroit	1513 Lafayette Bldg.	Los Angeles	1422 Wm. Fox Bldg.

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Jobbers Debate Merits of Leasing Out Stations

NPN's debate on the question, Should the Oil Jobber Take Back and Operate His Stations?, is open to all readers. Editor Platt started the discussion in NATIONAL PETROLEUM NEWS of Feb. 15. First letters from jobbers were published March 1.

Here are letters from six Independent jobbers which discuss the so-called Dealer Marketing Plan or Iowa Plan. Two of them, at least, believe that the leased-station plan has its merits but they, too, agree that for one reason or another the plan has bogged down and that there is an imminent prospect of companies taking back and operating directly their stations.

Following are six more letters from Independent oil jobbers, debating the question of whether a jobber should take back his leased stations and operate them directly:

* * *

By H. E. Milton,
Milton Oil Co.
St. Louis, Mo.

"Regarding your inquiry as to whether the jobbers are beginning to take back their leased service stations. No jobber can establish a policy with reference to that subject.

"We find that stations are getting harder to lease all the time and the jobber is forced to take some stations back that he feels he can afford to operate profitably. Those that are not profitable they must close if they cannot surrender their leases.

"Regarding your inquiry whether the major oil companies are beginning to take over their stations. Undoubtedly, they are planning to do that since it is my understanding that the recent encouragement for their dealers to reduce price is going to put their dealers in such a position they will not be able to operate their stations profitably and will be forced to quit. This will force the major companies to eventually take the stations over and operate them on company-operated basis."

* * *

By M. B. Whiting, president, Whiting Oil Co., Clifton Forge, Va., and former president, National Oil Marketers Assn.

"In Virginia the petroleum jobbers have never operated their own stations to any considerable extent. They have always used what is now known as the Iowa plan; however, the larger jobbers own many of their stations and dealer outlets but have always handled them mainly on a dealer basis.

"From a net profit standpoint it is advisable to run your stations on a dealer basis, or the Iowa plan, if you can find reliable and financially able operators; but there is a great deal more pleasure gotten from operating your own stations than from the dealer operated station for the fact that you can see to it that they are representative of your idea of service to the motorist.

"One of the most destructive things we have to contend with in the industry today is—the urge by salesmen of major companies to have their dealers cut the retail price or give under canopy rebates in order to increase their gallonage; therefore, rendering it impossible from a financial standpoint for them to employ the proper service salesmen and equip their stations to meet the demands of the motoring public. Of course, when this cut price is met by all dealers, it results in each dealer getting the same gallonage for his supplying company that he would have gotten at the regular price if all dealers had maintained a legitimate market. Therefore, the final result is the dealer goes broke and out of business, thanks to the policy of the major companies desire for increased gallonage and high pressure sales program.

"The Whiting Oil Company has always operated many of their own stations and has never given up direct operation of its good stations, because we found it difficult and next to impossible to secure dealers with enough money to operate a station; and too, they are unwilling to keep their stations in a presentable condition, including clean closets, well displayed merchandise and to give service demanded by the motorists.

"Retail prices have remained more stable and satisfactory since the major companies discontinued their service station operations, except in cases of secret rebating, because they did not let even the most insignificant dealer post a price less than their posting without promptly meeting it, but today the better dealers do not give any notice to some small dealer, or a cut rate dealer; and they sometimes post four cents (4c) under the market, but soon they go broke or sick of losing money and they raise the price to at least a point where they can stay in business, and the only person they have hurt in their effort for increased gallonage is themselves.

"At no time did the major companies have any idea of how to carry on a retail price posting program. Each time they set up a new policy you could be sure they had made another mistake. This, of course, was due to the fact that they covered so much territory that they could not confine their authority to a proper scope. However, they did know how to keep clean, neat, comfortable stations and give super service.

"I am of the opinion that when the marketing division of the petroleum industry has been entirely separated from other divisions of the industry so as to become an individual industry among marketers, that the major companies will again go into the marketing field, but with a plan to market at a profit rather than disregarding losses in their marketing division with the definite assurance that their production, refining and transportation divisions will absorb their marketing losses. It is unfortunate that the dealer has not been able to take advantage of an opportunity which has been presented to him on a silver platter to build an industry of his own; but unless the jobbers and dealers improve their marketing facilities and service to the motoring public, there will be a demand for the major companies to return to the retail marketing field in order to supply the required services of the motorists."

* * *

By Wallace H. Wright

Crescent Gas Organization, Inc., East St. Louis, Ill.

"As to whether or not the jobbers are beginning to take back their leased stations, I am not prepared to answer. However, I do know that where jobbers are not satisfied with the so-called 'Iowa Plan'—for instance such locations representing outlets for their products and therefore carrying high advertising value, he is seriously concerned regarding the general type of housekeeping some operators are giving and feeling that the loss of cleanliness and efficient management at these points may work to the disadvantage of his business as a whole causes him

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to feel that there are certain key stations that should be under direct management. He does feel, however, that the smaller outlet stations are much better off under 'Iowa Plan.'

"Regarding the larger oil companies, I am of the opinion that they are thinking along exactly the same lines. Personally, I would much prefer leased operations, provided one could forget the social security obligations, union demands, etc., and step in with some sort of overseeing direction.

"To me it is obviously unfair to a company of national reputation, which spends large sums of money annually to advertise their products, telling the public that the stations where the sign is displayed is a 'Friendly Station,' 'Clean Rest Room Station,' 'Certified Lubrication Depot,' 'Travelers Advisory Station' and yet the tourist or the stranger finds diagonally the opposite attitude on the part of the station attendant and operator.

"In short, it causes me to feel that any nationally branded product that sets forth certain ideals of housekeeping regarding the property through which their products pass would be much better off if they limited the number of flags flying and would carefully patrol the areas and depots through which their merchandise passes.

"It is obvious that we have entirely too many retail outlets for our consumer trade. With today's modern automobiles a distance of three to five miles in order to reach a well-kept, well-maintained and well-managed station would certainly be the preference of the discriminating motorist over that of a small wayside outlet.

"It is my opinion that no national flag should fly over a station doing less than 6000 gallons. Of course, in smaller country towns the gallonage would be in proportion to the population area the national brand was granted the operator of an outlet as their representative in that community."

* * *

By A. F. Geyer,
The Dixie Oil Company, Inc.,
Of Waterville, Kans.

"I think the trend is swinging back to company operation of its own service stations. It seems to me the hazard of leasing highly improved stations is too great, in that it is extremely difficult to obtain an efficient lessor who will operate successfully without constant supervision.

"Here in Kansas it seems apparent, at this time, the chain-store tax bill, which is modeled after the Louisiana law will have a hard time in passing. However, should it pass in the original form submitted, it will not effect the service stations, as all service stations are exempt under this act. This, no doubt, will encourage the large oil companies to again operate their own stations.

"Marketing conditions, of course, differ greatly in the various states and I speak only from my personal point of view.

"In my estimation, the worst headache we have received here in Kansas was through the idea of the 'Iowa plan.' Since the introduction of this plan, marketing conditions have steadily gone from bad to worse and today, I think, we have the most demoralized marketing situation in Kansas that I have seen at any time during my eighteen years of experience in the oil business. This 'Iowa plan' idea may be ideal in certain sections of the country, but where we have our source of supply so close at hand, it seems to me the idea is far from a solution of our troubles."

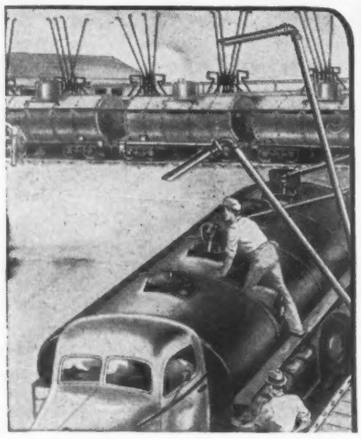
* * *

By L. L. Coryell, Jr., Vice President
L. L. Coryell & Son, Lincoln, Neb.

"I read, with great interest, your editorial for Feb. 15th. Bear with us a moment while we give you the following ideas, possibly all of which you have thought entirely through to infinity.

"You are so right that it is not even funny about this Iowa Plan, but Senior and I believe that one solution would be for major companies to operate one central, well located station to each unit of population. Suppose for example, in Omaha, a city of 200,-

18 to 24 MONTHS



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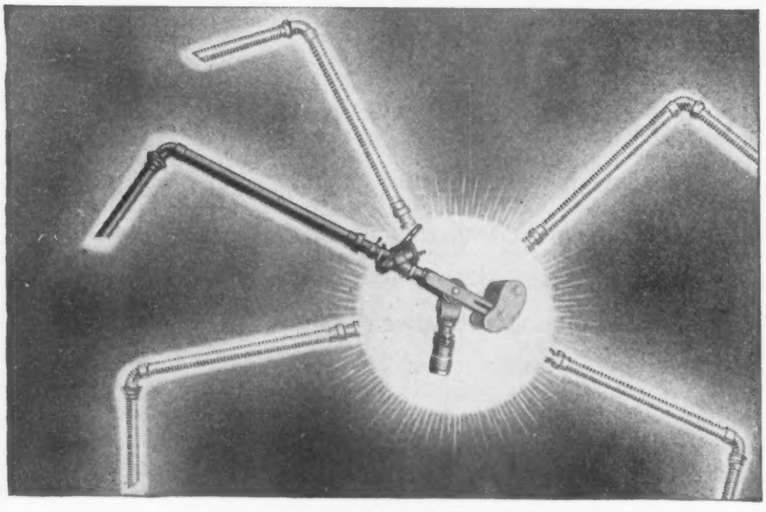

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000, that Standard would operate eight stations out of their 45 or 50. If those stations were properly located they could positively police the territory. Or perhaps, the unit of 25,000 population is too small per station. Even if they would operate one station for every 50,000 that would be four in Omaha, and dealers could not long ignore such leadership.

"Throughout the rural areas, if they would operate on a mileage basis, rather than population, the same thing, in our opinion, would work. For example, between Omaha and Kansas City, on the Iowa side, if they would locate and operate retail, one station every 25 miles, likewise, the dealers in other surrounding towns could not ignore such leadership. In these areas, that are more sparsely populated, farmers will actually trade in the towns where gasoline prices are at the low levels.

"Another suggestion, which we believe has value, is this: A few years ago all power rested in the Indiana territory on Michigan Avenue. Then the pendulum swung the other way and division managers had the power to cut prices in certain instances, without the authority of Chicago. In our opinion that has gone too far. It certainly has, unless it is the desire of major companies to hold prices down. For example, we can show you today innumerable cities of the Middle West, some of them pretty good sized, in which prices are badly depressed. All Independents and all Majors are anxious to restore prices to normal, but Standard dealers won't advance, because they say, 'We will lose our special price if we do and will have no more margin than we now have.'

"The Standard division managers in many instances know of this and refuse to do anything about it. We do not look upon this refusal as any basic piece of intelligence, or even instructions from Chicago, because in other instances other Standard division managers, from our observation, appear to be interested in fair prices.

"Insofar as, chain store taxes are concerned, and other burdens, because of retail operation, they might be lessened by a co-operative plan in which one large company would follow some of the above suggestions, in a certain part of the state, and another one provide this leadership in another part of the state. That certainly would not be illegal 'we hope' and no one company would need absorb such a great shock.

"In conclusion, just as we have found that some of the old home made remedies work about as well for my cold, as these 'highfalooting' shots in the arm, we likewise believe yet in the 'oldfashioned restoration to normal days' in which the market-makers restore everything normal in bad areas and good areas, alike, naturally within a few days, then meeting local situations. With far flung operations, with the frailty of human kind and the tempers of man, with irritability widespread, because of the times, in our opinion there is no other way to clean up a territory."

* * *

By J. F. Wilson, Port Huron, President of Michigan Petroleum Assn.

"Regarding the question of whether or not the Jobber should operate the company-owned station, or if they are better off to lease the stations to independent operators, in my own territory in which I am operating, consisting of six counties in eastern Michigan, I am satisfied that the so-called Iowa plan deserves to be looked upon with considerable favor.

"It is true to a certain extent that company-operated stations are kept in a more cleanly condition and with proper supervision it would appear that a higher standard of sales effort could be made. But it seems to me that in the limited way in which I have been able to observe the service station operation both before and after the adoption of the Iowa plan that independent station operators have adapted themselves more to the ways of the customers in their locality and have attracted to their stations customers who appreciate the independent efforts made by these station operators.

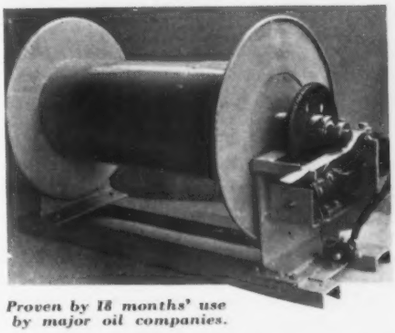
"It appears to me that a variety of operating methods which would be achieved by station operators who are not too closely supervised and kept within certain operating practices have a distinct advantage over company-owned, company-policied, and company-supervised operation.

"In regard to maintaining the volume of business, I am inclined to think that the criticism of the major companies directed toward the operators who are under the Iowa plan in not getting as much business as was experienced by the major operators prior to the adoption of the Iowa plan is due to a certain extent to the general expansion in the number of service stations in operation owing to the continued expansion program of building new stations.

"In regard to maintaining prices, I am of the opinion that we had disastrous price wars prior to the adoption of the Iowa plan—in fact, I believe that there were times under major oil company's management when the retail prices were demoralized to a greater extent than they have been under dealer operation.

"It is my personal opinion that the most disturbing element which we are encountering today in regard to the retail price situation, is the interest of the majors in having the retail price structure lowered by the retail dealers who are now operating under the Iowa plan. In our territory, certain integrated companies have been very active in forcing the dealer operator to break his retail price structure, even going so far as to tell the operator they would cancel his contract unless he would cut his retail prices.

"It is true that some of the major operators have claimed considerable loss in gallonage due to the inefficiency



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of the dealers who are operating their stations, but I believe a careful analysis of this gallonage loss would reflect back to a certain extent on the company's policy concerning their products, and also upon their selection of satisfactory operators for their stations.

"It is my opinion that when the major oil companies changed over to the Iowa plan, they simply turned over their stations to the old operators who were trained to operate service stations under policies set up by the major oil companies, and they did not take into consideration that they were now intending to operate their stations under a dealer set-up which required a different type of operator than they had previously had. In other words, the men in the stations prior to the adoption of the Iowa plan were hired men who were especially trained to operate under company supervision, and they were not always the type of men who would make good merchandisers on their own.

"We are operating fifty stations; we have been in business eighteen years and have always operated along the so-called Iowa plan, and we have developed merchandisers who are making a success of distributing our products."

"STRICTLY PERSONAL"

Charles L. Rohr, and his daughter Miss Florence Rohr, of the Log Cabin Oil Co., at Mason City, Iowa, were injured in an auto accident while driving to the Iowa Independent Oil Jobbers' Assn. annual convention last week in Des Moines. Near Iowa Falls, while passing a parked truck, an automobile swung across the path of their car. Both were shaken and bruised, and their auto was demolished.

* * *

President **E. W. Sinclair** of the Sinclair Refining Co., on an inspection tour in Texas, warned oil men that future prosperity of the industry depended on co-ordination of all units to balance supply with demand. Vice President **J. W. Carnes** accompanied Sinclair on his trip.

* * *

A. L. McColl of London, head of the Socony-Vacuum Oil Corp.'s market system in Great Britain and Ireland, and his son, **Alastair McColl,** were guests last week of Board Chairman **E. R. Brown** of the Magnolia Petroleum Co. and other officials at Dallas. The two McColls are en route from the West Coast.

* * *

J. C. Van Kerkhof and **P. M. Gunst** have arrived in the Mid-Continent territory from The Hague, Holland, to study production methods. The two are employes of the **Bataasche Petroleum Maatschappy,** one of the Dutch Shell group, and while in the Mid-Continent will spend most of their time with production men of the Shell Petroleum Corp.

* * *

Vice President **Don Emery** of the Phillips Petroleum Co. has announced reorganization of the legal department due to its increasing size with the following changes in personnel:

Judge R. H. Hudson, for 17 years general attorney, has been made counsel to the legal department, which has been divided into two operating units.

Rayburn L. Foster, formerly assistant general attorney in Bartlesville, and **R. B. F. Hummer,** formerly in charge of the company's Oklahoma City legal division, have been made general attorneys in charge of the legal department.

H. D. Turner, assistant at Oklahoma City, will take Hummer's place at that division point.

* * *

W. L. James of Tulsa has been elected vice president of District No. 2 of the National Assn. of Purchasing Agents by the members of the Purchasing Agents Assn. of Tulsa. James is purchasing agent for Stanolind Oil & Gas Co.

* * *

John O'Shaughnessy, vice president of the Lario Oil & Gas Co., subsidiary of the Globe Oil & Refining Co., Wichita, Kan. is reported recovering satisfactorily from an emergency appendectomy performed Feb. 24.

* * *

William K. Cottrell, former Tulsan and recently with the Oklahoma tax commission, has been elected secretary and treasurer of the East Texas Refining Co., which has headquarters at Dallas.

* * *

J. P. Stocker, formerly sales manager of the Lubrication Corp., has joined Quaker Petroleum Co., of Omaha, as assistant sales manager. Stocker has gone to Omaha, and is moving his family from Chicago later this month.

* * *

Several personnel changes effective February 15 have been announced by the Lion Oil Refining Co., as follows:

C. R. Olson, sales promotion manager of the company since 1936, has been placed in charge of the advertising department. He will continue to direct the sales promotion department as well as the advertising department, with offices in the Exchange Building, El Dorado.

Walter R. Haun of El Dorado, former advertising manager, has been made division sales manager for the company's Mississippi division which includes Mississippi, Tennessee and Alabama, with offices in Madison Building, Memphis.

W. King O'Leary of Little Rock, formerly tire sales representative for Lion in the Arkansas division, has been named division sales manager for that division of the company and will continue to maintain offices at 801-805 in the Professional Building, Little Rock.

R. W. Reynolds, formerly assistant to **F. M. Rider,** El Dorado, manager of Lion station sales, has been transferred to the Mississippi division office at Memphis, as assistant to **J. A. McNeil,** division manager. **Virgil Stover,** formerly assistant to **M. R. Springer,** Arkansas division manager, Little Rock, has been transferred to El Dorado to become assistant to Rider. **E. R. Saunders,** formerly a sales representative of the Mississippi division, has been transferred to the Arkansas division office at Little Rock to succeed Stover.

A department of public relations has been created with **Miles Scull, Jr.,** former Little Rock newspaperman, as director. His offices are at El Dorado.

* * *

Norman E. Vaughan, manager of the bitumen division of Standard Vacuum Oil Co., headquarters Melbourne Australia, held the record for the champion long distance delegate to the Asphalt Institute convention in Los Angeles last week. On an inspection of road building technique in this country, he will attend the Road Show in San Francisco before going to New York.

* * *

Charles H. Miller, formerly assistant foreman of Union Oil Co.'s gas department at Kettleman Hills, has been transferred to Santa Fe Springs as safety supervisor, succeeding **V. E. Farmer,** recently resigned. Miller will act as secretary of the Superintendent's Safety Committee of which **J. C. Rector** is chairman.

* * *

H. G. Nevitt, manager of the asphalt department of White Eagle Oil Corp., Kansas City, Mo., and Mrs. Nevitt motored to Los Angeles for the Asphalt Institute convention and will visit the World's Fair and the Road Show in San Francisco.

* * *

Vern A. Bellman, previously Los Angeles district manager of General Petroleum Corp.'s southern California Division, has been assigned to manage the company's Seattle district. Bellman was formerly a star on the Washington University football team.

Markets

Mid-Continent

TULSA, March 6.—Increased shipments of gasoline against jobber contracts together with purchases of gasoline by some refiners who said they were short, were factors which "tightened" supplies of gasoline in the Mid-Continent, according to reports last week. Higher prices for some grades of gasoline were reported by some refiners.

An Oklahoma refiner who had been quoting 70-72 octane gasoline at 4.25 cents reported advancing his quotation 0.125 cents to 4.375 cents. Quotations reported for this grade by other Oklahoma refiners also were at this level and higher as follows: three refiners, 4.375 cents; one refiner, 4.375 to 4.5 cents; one refiner, 4.375 to 4.625 cents; two refiners, 4.5 cents; two refiners, 4.625 cents; and one refiner, 5 cents.

A 25-car purchase of 67-69 octane gasoline was reported by an Oklahoma refiner, price unnamed. Two other Mid-Continent refiners were said to be on the buying side of the market for high octane gasoline.

Eastern

NEW YORK, March 6.—Gasoline markets along the eastern seaboard were rife with reports of price shading during the week ended March 4.

While these reports of lower-priced offerings could not be confirmed, sellers said that they undoubtedly have come about because of the narrowness of the spread between dealer and commercial consumer tank car prices, and current wholesale prices.

Reports of shading of 6.25 cents for high octane gasoline were heard at Boston and Providence.

California

LOS ANGELES, March 4.—A general reduction reported early in the week of 10 cents a barrel on posted diesel and 24 plus gravity oil prices for delivery to bunkers of ocean going vessels, was the feature of west coast marketers. No change was reported in bunker fuel oil posted prices, which remained at 90 cents a barrel, San Perdo Harbor.

The price cut was coast-wide with the following quotations reported by major suppliers: San Pedro $1.45; San Francisco $1.50; and Portland $1.70. Independent suppliers, equipped to make these deliveries, reported prices 2.5 cents lower.

In the offshore bulk markets, the Japanese Navy was reported in a deal for two cargoes—180,000 barrels—of gas oil, with indications two suppliers would divide the award.

N. P. N. Refinery Index

The Refinery Index shown below is the calculated average return from refining a barrel of 36 gravity Mid-Continent crude into its various principal products at the current price of crude oil. The index indicates the following margins in cents per barrel (42 gallons) between cost of crude and current selling price of products.

Date	Margin
March 1	39.4
Month ago	34.4
Year ago	35.8

Mid-Western

CHICAGO, March 6.—Open spot sales of 18 cars of gasoline were reported by Chicago tank car marketers and refiners the first week of March. Two marketers reported advancing their quotations on 62 octane and below and 67-69 octane gasoline 0.125 cent to 3.375 cents and 3.875 cents, respectively. Other quotations reported for these grades ranged up to 4 cents for 63-66 octane and 4.25 cents for 67-69 octane gasoline.

Jobber demand for all grades of gasoline against contracts was said to be active in anticipation of higher prices preparatory to spring movement. Some tank car marketers said they had difficulty in obtaining supplies of gasoline.

Quotations reported by Chicago traders for kerosine continued to range from 3.5 to 4.375 cents.

Pennsylvania

CLEVELAND—Higher prices for wax and some grades of dark cylinder stock featured the western Pennsylvania refinery market the first week of March. Fuel oil also was quoted higher in the Bradford-Warren district while kerosine was offered at lower prices in that district.

A number of refiners said they were booked up four to eight weeks ahead on wax because of heavy foreign demand through New York brokers. Advances reported in quotations for the most part were 0.05 cent per pound although some refiners said they had marked their prices up 0.1 cent. As the week ended, quotations reported for 122-124 A.m.p. white crude scale ranged from 2.5 to 2.55 cents per pound, New York; for 124-126, 2.55 to 2.6 cents, New York.

Advances in quotations for 650 steam refined ranged from 0.5 to 1.5 cents per gallon with this grade quoted at 10 to 11 cents as the week ended, according to reports.

N.P.N. Gasoline Index

	Dealer T.w. Cents per gal.	Tank Car
Mar. 6	9.35	5.42
Month ago	9.51	5.37
Year ago	10.11	5.85

Dealer index is an average of "undivided" dealer prices, ex-tax, in 50 cities.

Tank car index is a weighted average of 12 wholesale markets for regular-grade gasoline.

Gulf

NEW YORK, March 6.—Sales of three cargoes of gasoline for export shipment, and one cargo of Grade C bunker oil for domestic shipment were reported in the Gulf market the week ended March 4.

Two of the gasoline cargoes were purchased by French buyers. One called for approximately 50,000 barrels of 65 octane, 390 end point gasoline at 4.375 cents, f.o.b. Gulf, for late March lifting. The other called for approximately 30,000 barrels of 68 octane, 390 end point at 4.875 cents, for lifting between March 15 and 20. Third cargo reported last week called for approximaely 60,000 barrels of 65 octane, 390 end point gasoline at 4.5 cents per gallon, f.o.b. Gulf, for March-April lifting.

Details, other than price, of the cargo of Bunker C fuel reported sold last week could not be obtained. Reports were that the material went at $0.675, f.o.b. Gulf. Suppliers who recently had reported quoting Grade C in cargoes at $0.65, said they had advanced to a low of $0.675.

Fuel Oil

NEW YORK, March 6.—Key northern wholesale markets—New York, Boston and Providence—were not included in an 0.125-cent reduction in tank car prices for No. 2 fuel oil announced March 1 by Socony-Vacuum Oil Co. as effective at all "normal" points in New York state and New England.

A number of suppliers at New York harbor reported reducing their tank car prices for kerosine and No. 1 fuel oil to 4.5 cents late in the week. No changes were reported in barge prices for these oils.

* * *

TULSA, March 6.—Because of the lateness of the heating oil season, northern distributors were said to be working on a "hand-to-mouth" basis. Quotations reported unchanged.

* * *

CHICAGO, March 6. — Open spot sales of 6 cars of light fuel oil were reported by Chicago traders last week. Most tank car marketers and refiners said jobber demand was slow because of milder temperatures.

REFINERY TANK CAR MARKETS

All prices on this page are publisher's opinion of open market quotations or sales, for spot shipment (10 to 15 days) unless otherwise stated. Prices in cents per gallon, except heavy fuel oils in dollars per barrel of 42 gallons, wax and petrolatums in cents per pound in barrels, tank car lots, f.o.b. refineries in districts designated, except where otherwise noted. Inter-refinery and export prices not included unless so stated in the respective markets. Federal, state or municipal taxes not included. Prices quoted apply on products made from legally produced crude. Unless otherwise noted, gasoline octane ratings are determined by C.F.R. Motor method, A.S.T.M. D-357-33T; and lubricating oil specifications determined according to A.S.T.M. methods, unless otherwise noted.

Gasoline

Prices Effective	March 6	Feb. 27
OKLAHOMA		
U. S. Motor: (Octane L-3)		
62 oct. & below	3.625– 4.25	3.625– 4.25
63-66 oct.	3.875– 4.25	3.875– 4.25
67-69 oct.	4.125– 4.625	4.125– 4.625
70-72 oct.	4.375– 5.00	4.25 – 5.00
60-62, 400 e.p.	(h)3.75	(h)3.75
WESTERN PENNA.		
Bradford-Warren:		
Motor gasoline:		
U. S. Motor:		
Min. 65 oct.	6.00 – 6.75	6.00 – 6.75
Min. 70 oct.	(h)6.50	(h)6.50
"Q" gasoline	(g&h)6.50–6.75	(g&h)6.50–6.75
Other districts:		
Motor gasoline:		
U. S. Motor (58-62° gravity):	4.25 – 5.00	4.25 – 5.00
"Q" gasoline	(g) 6.25– 7.00	(g) 6.25– 7.00
CENTRAL MICHIGAN (a)		
Str.-Run Gasoline	(c) 4.00 –4.50	(c) 3.75– 4.50
U. S. Motor: (Octane L-3)		
67-69 octane	(e)6.25	(e)6.75
70-72 octane	7.25 – 7.75	7.25 – 7.75

Prices Effective	March 6	Feb. 27
CALIFORNIA (3c tax to be added if used in state)		
U. S. Motor:		
54-58 gravity, for in-state shipment	6.75 – 9.25	6.25 – 9.25
54-58 gravity, for out-side state shipment	6.25 – 9.00	6.25 – 9.00
58-61 gravity, 375-400 e.p., 65 oct. & above	7.75 – 9.75	7.50 – 9.75
N. TEX. (b)		
U. S. Motor: (Octan L-3)		
62 oct. & below	3.625– 4.25	3.625– 4.25
63-66 oct.	4.125– 4.50	4.125– 4.50
67-69 oct.	4.25 – 4.625	4.25 – 4.625
70-72 oct.	4.375– 5.00	4.375– 5.00
60-62, 400 e.p.	(h)3.625	(h)3.625
KANSAS (For Kansas destinations only)		
U. S. Motor: (Octane L-3)		
62 oct. & below	3.875– 5.00	3.875– 5.00
67-69 octane	(h) 4.25– 5.50	(h) 4.25 –5.50
70-72 octane	4.625– 5.875	4.625– 5.875
W. TEX. (b)		
U. S. Motor: (Octane L-3)		
62 oct. & below	3.75 – 4.50	3.75 – 4.50
63-66 oct.	(e)4.125	(e)4.125
67-69 oct.	4.375– 5.125	4.375– 5.125
70-72 oct.	4.625– 5.00	4.625– 5.00

Prices Effective	March 6	Feb. 27
CENTRAL WEST TEXAS (Prices to truck transports)		
U. S. Motor Gasoline: (Octane L-3)		
62 oct. & below	(h) 3.625–4.00	(h) 3.625–4.00
63-66 octane	(e)4.75	(e)4.75
66-70 octane	(e)5.25	(e)5.25
E. TEX.		
U. S. Motor Gasoline, (Octane L-3)		
67-69 oct.	(e)4.25	(e)4.25
70-72 oct.	(e)4.50	(e)4.50
60-62, 400 e.p.	(h)4.00	(h)4.00
N. LA. (For shipment to La. & Ark.)		
U. S. Motor: (Octane L-3)		
62 oct. & below	(h) 4.125–4.375	(h) 4.125–4.375
63-66 oct.	(e) 4.375–4.625	(e) 4.375–4.625
67-69 oct.	(e) 4.625–4.875	(e) 4.625–4.875
70-72 oct.	(e) 4.875–5.375	(e) 4.875–5.375
ARKANSAS (F.o.b. Ark. plant of one refiner, for shipment to Ark. & La.)		
U. S. Motor: (Octane L-3)		
62 octane & below	4.00	4.00
67-69 oct.	5.125	5.125
OHIO (S. O. Ohio quotations for statewide delivery and subject to exceptions for local price disturbances)		
U. S. Motor	7.25	7.25
Above 65 oct.	7.50	7.50

(Continued on next page)

(a) Prices f.o.b. Central Michigan refinery group basis, for shipment within Mich. Shipments may originate at plants outside Central group. (b) For shipment to Texas and New Mexico destinations; Group 3 prices quoted on northern shipments. (c) Excluding Detroit shipment. (e) One refiner quoting. (f) Two suppliers quoting. (g) To resellers holding licenses. (h) Two refiners quoting.

MID-WESTERN TANK CAR MARKET

Prices in this Midwestern Tank Car Market table are gathered from refiners and tank car marketers or brokers from their offices located in Chicago and the surrounding territory. While the prices are quoted on a Group 3 (Oklahoma) freight rate basis, this is in accordance with the custom of the oil industry which uses Group 3 as a price basis for the ease of comparing prices even when the material originates in another refining district. Generally when prices are quoted in this Chicago market, the origin of the material is not known at the time the quotation is given, oftentimes even with the quoting refiners who have refineries in more than one refining district. All other gasoline prices are given by and for the particular refining district where the material is made and from which it is shipped.

Gasoline

Prices Effective	March 6	Feb. 27
U. S. Motor: (Octane L-3)		
62 oct. and below	3.375– 4.00	3.25 – 4.00
63-66 oct.	3.75 – 4.00	3.625– 4.00
67-69 oct.	3.875– 4.25	3.75 – 4.25
70-72 oct.	4.00 – 4.625	4.00 – 4.625

Kerosine

41-43 gravity, w.w.	3.50 – 4.125	3.50 – 4.125
42-44 gravity, w.w.	3.625– 4.375	3.625– 4.375

Fuel and Gas Oils

Prices Effective	March 6	Feb. 27
No. 1 p.w.	3.375– 3.875	3.375– 3.875
No. 1 straw	3.375– 3.625	3.375– 3.625
No. 2 straw	3.25 – 3.50	3.25 – 3.625
No. 3	3.00 – 3.375	3.00 – 3.375
No. 5	$0.575–$0.65	$0.575–$0.65

Prices Effective	March 6	Feb. 27
No. 6	$0.35 –$0.45	$0.35 –$0.45
U. G. I. gas oil	2.50 – 2.875	2.50 – 2.875
Range oil	3.375– 4.00	3.375– 4.00

Naphtha and Solvent

Stoddard solvent	5.875	5.875
Cleaners' naphtha	6.375	6.375
V. M. & P. naphtha	6.375	6.375
Mineral spirits	5.375	5.375
Rubber solvent	6.375	6.375
Lacquer diluent	7.375	7.375

Daily range of gasoline prices as reported in PLATT'S OILGRAM (Week Ended March 3, 1939)

U. S. Motor, (Octane Number determined according to L-3 Method in Okla., Texas and Mid-Western Districts):	Feb. 27	Feb. 28	March 1	March 2	March 3
62 octane and below:					
Oklahoma	3.625– 4.25	3.625– 4.25	3.625– 4.25	3.625– 4.25	3.625– 4.25
(a) North Texas	3.625– 4.25	3.625– 4.25	3.625– 4.25	3.625– 4.25	3.625– 4.25
West Texas	3.75 – 4.50	3.75 – 4.50	3.75 – 4.50	3.75 – 4.50	3.75 – 4.50
Mid-Western (Group 3 basis)	3.25 – 4.00	3.25 – 4.00	3.25 – 4.00	3.375– 4.00	3.375– 4.00
63-66 octane:					
Oklahoma	3.875– 4.25	3.875– 4.25	3.875– 4.25	3.875– 4.25	3.875– 4.25
(a) North Texas	4.125– 4.50	4.125– 4.50	4.125– 4.50	4.125– 4.50	4.125– 4.50
West Texas	(b)4.125	(b)4.125	(b)4.125	(b)4.125	(b)4.125
Mid-Western (Group 3 basis)	3.625– 4.00	3.625– 4.00	3.625– 4.00	3.625– 4.00	3.625– 4.00
67-69 octane:					
Oklahoma	4.125– 4.625	4.125– 4.625	4.125– 4.625	3.875– 4.625	4.125– 4.625
(a) North Texas	4.25 – 4.625	4.25 – 4.625	4.25 – 4.625	4.25 – 4.625	4.25 – 4.625
West Texas	4.375– 5.125	4.375– 5.125	4.375– 5.125	4.375– 5.125	4.375– 5.125
East Texas	(b)4.25	(b)4.25	(b)4.25	(b)4.25	(b)4.25
Mid-Western (Group 3 basis)	3.75 – 4.25	3.75 – 4.25	3.75 – 4.25	3.75 – 4.25	3.875– 4.25
70-72 octane:					
Oklahoma	4.25 – 5.00	4.25 – 5.00	4.375– 5.00	4.375– 5.00	4.375– 5.00
(a) North Texas	4.375– 5.00	4.375– 5.00	4.375– 5.00	4.375– 5.00	4.375– 5.00
West Texas	4.625– 5.00	4.625– 5.00	4.625– 5.00	4.625– 5.00	4.625– 5.00
East Texas	(b)4.50	(b)4.50	(b)4.50	(b)4.50	(b)4.50
Mid-Western (Group 3 basis)	4.00 – 4.625	4.00 – 4.625	4.00 – 4.625	4.00 – 4.625	4.00 – 4.625
Motor Gasoline, 60-64 octane:					
New York harbor	5.875– 6.25	5.875– 6.25	5.875– 6.25	5.875– 6.25	5.875– 6.25
Philadelphia district	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50
Baltimore district	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50
Motor Gasoline, 65 octane & above:					
New York harbor	5.875– 6.50	5.875– 6.50	5.875– 6.50	5.875– 6.50	5.875– 6.50
Philadelphia district	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50
Baltimore district	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50	6.00 – 6.50
U. S. Motor, 58-62°:					
Bradford-Warren (Western Penna.)	.....	.....	.....	.....	.....
Other districts (Western Penna.)	4.25 – 5.00	4.25 – 5.00	4.25 – 5.00	4.25 – 5.00	4.25 – 5.00
Motor Gasoline, Min. 65 octane:					
Bradford-Warren (Western Penna.)	6.00 – 6.75	6.00 – 6.75	6.00 – 6.75	6.00 – 6.75	6.00 – 6.75
Other districts (Western Penna.)	.....	.....	.....	.....	.....
Motor Gasoline, Min. 70 octane:					
Bradford-Warren (Western Penna.)	(e)6.50	(e)6.50	(e)6.50	(e)6.50	(e)6.50
"Q" Gasoline:					
Bradford-Warren (Western Penna.)	(b&c)6.50–6.75	(c&e) 6.50–6.75	(c&e) 6.50–6.75	(c&d) 6.50–6.75	(c&d)6.50–6.75
Other Districts (Western Penna.)	(c) 6.25– 7.00	(c) 6.25– 7.00	(c) 6.25– 7.00	(c) 6.25– 7.00	(c) 6.25– 7.00

(a) For shipment to Texas and New Mexico destinations: Group 3 prices are quoted on northern shipment. (b) One refiner quoting. (c) To resellers holding licenses. (d) No price reported. (e) Two suppliers quoting.

REFINERY TANK CAR MARKETS

All prices on this page are publisher's opinion of open market quotations or sales, for spot shipment (10 to 15 days). Prices in cents per gallon except heavy fuel oils in dollars per barrel of 42 gallons, tank car lots, f.o.b. refineries in districts designated, except where otherwise noted. Inter-refinery and export prices not included, unless so stated in the respective markets. Federal, state or municipal taxes not included. Prices quoted apply on products made from legally produced crude. Unless otherwise noted, gasoline octane ratings are determined by C.F.R. Motor method, A.S.T.M. D-357-33T; and lubricating oil specifications determined according to A.S.T.M. methods, unless otherwise noted.

Natural Gasoline

(Prices to blenders on freight basis shown below. Shipments may originate in any Mid-Continent manufacturing district.)

Prices Effective	March 6	Feb. 27
F.O.B. GROUP 3		
Grade 26-70	2.50 – 2.625	2.50
F.O.B. BRECKINRIDGE		
Grade 26-70	2.375	2.375
CALIFORNIA (F.o.b. plants in Los Angeles basin)		
75-85, 350-375 e.p. for blending	6.50 – 6.75	6.50 – 6.75

Kerosine

WESTERN PENNA.		
Bradford-Warren:		
45 gravity w.w.	5.00 – 5.25	5.125– 5.25
46 gravity w.w.	(e) 5.375–5.50	(e) 5.375–5.50
Other districts:		
45 gravity w.w.	5.00 – 5.25	5.00
46 gravity w.w.	(h)5.125	(h)5.125
47 gravity w.w.	5.25	5.25
CENTRAL MICHIGAN (a)		
47-49 gravity w.w.	5.05 – 5.20	5.05 – 5.20
OKLAHOMA		
41-43 gravity w.w.	3.875– 4.25	3.875– 4.25
42-44 gravity w.w.	4.00 – 4.625	4.00 – 4.625
KANSAS (For Kansas destinations only)		
41-43 gravity w.w.	(e)4.25	(e)4.25
42-44 gravity w.w.	4.375– 4.50	4.375– 4.50
N. TEX. (b)		
41-43 gravity w.w.	4.25 – 4.50	4.25 – 4.50
N. LA. (For shipment to La. and Ark.)		
41-43 gravity w.w.	(h) 4.00 –4.125	(h) 4.00 –4.125
ARK. (F.o.b. Ark. plant of one refiner for shipment to Ark. and La.)		
41-43 gravity w.w.	4.50	4.50
CALIFORNIA		
40-43 gravity w.w.	5.00 – 7.00	5.00 – 7.00

Gas *and* Fuel Oils

WESTERN PENNA.		
Bradford-Warren:		
36-40 gravity	(e)4.625	(e)4.375
Other districts: (Excluding Pittsburgh District Prices)		
36-40 gravity	4.25 – 4.375	4.25 – 4.375
CENTRAL MICHIGAN (a)		
P.W. Distillate	4.50 – 4.75	4.50 – 4.75
No. 3 gas oil, Str.	4.00 – 4.50	4.25 – 4.50
U.G.I. gas oil	3.75 – 4.00	3.75 – 4.00
Fuel Oils (Vis. at 100):		
500-700 Vis.	2.00 – 2.25	2.00 – 2.25
300-500 Vis.	2.25 – 2.50	2.25 – 2.50
100-300 Vis.	2.375– 3.00	2.375– 2.875
OKLAHOMA		
No. 1 prime white	3.50 – 4.00	3.50 – 4.00
No. 1 straw	(h) 3.375-3.625	(h) 3.375–3.625
No. 2 straw	3.25 – 3.625	3.25 – 3.625
No. 2 dark	(h) 3.125–3.25	(h) 3.125–3.25
U.G.I. gas oil	(h) 3.25 –3.375	(h) 3.25 –3.375
28-30 gravity fuel oil	(e)3.25	(e)3.25
28-30 gravity zero fuel	2.875– 3.25	2.875– 3.25
24-26 gravity fuel	(e) $0.85–$0.90	(e) $0.85–$0.90
14-16 gravity fuel	(e)$0.70	(e)$0.70
No. 6 fuel	(h) $0.35–$0.45	(h) $0.35–$0.45
Range oil	3.875– 4.00	3.875– 4.00
KANSAS (For Kans. destinations only).		
No. 1 p.w. fuel oil	3.75 – 4.00	3.75 – 4.00
10-14 gravity fuel oil	$0.45 –$0.80	$0.45 –$0.80
N. TEX. (b)		
No. 1 Prime white	(e)4.00	(e)4.00
N. LA. (For shipment to La. and Ark.)		
20-24 gravity fuel	(e) $1.00–$1.05	(e) $1.00–$1.05
16-20 gravity fuel	(e) $0.80–$0.85	(e) $0.80–$0.85
10-14 gravity fuel	(e) $0.70–$0.75	(e) $0.70–$0.75
ARK. (F.o.b. Ark. plant of one refiner, for shipment to Ark. and La.)		
No. 2 fuel	3.625	3.625
28-30 gravity gas oil, zero	3.25	3.25
Tractor Fuel	(j)4.25	(j)4.25

Prices Effective	March 6	Feb. 27
CALIFORNIA		
San Joaquin Valley:		
Heavy fuel	$0.50 –$0.75	$0.50 –$0.75
Light fuel	$0.65 –$0.85	$0.65 –$0.85
Diesel fuel (per gal.)	2.75 – 4.00	2.75 – 4.00
Stove dist. (per gal.)	3.25 – 5.00	3.25 – 5.00
Los Angeles:		
Heavy fuel	$0.50 –$0.90	$0.50 –$0.90
Light fuel	$0.60 –$1.00	$0.60 –$1.00
Diesel fuel (per gal.)	2.50 – 4.00	2.50 – 4.00
Stove dist. (per gal.)	2.75 – 5.00	2.75 – 5.00
San Francisco:		
Heavy fuel	$0.95	$0.95
Light fuel	$1.05	$1.05
Diesel fuel (per gal.)	4.50	4.50
Stove dist. (per gal.)	5.50	5.50

Note: All above heavy fuels meet Pacific specification 400; light fuel, spec. 300; Diesel fuels, spec. 200; and stove distillate, spec. 100.

Neutral Oils

WESTERN PENNA. (Refiners report no open spot market sales being made to jobbers and give following as their quotations only.)

Viscous Neutrals No. 3 col. (*Viscosity at 70° F.*)		
200 Vis. (180 at 100°) 420-425 fl.		
0 p.t.	(e)17.75	(h) 17.75–19.00
10 p.t.	(e)16.75	(h) 16.75–18.00
15 p.t.	(e)16.25	(h) 16.25–17.50
25 p.t.	15.25 –16.00	15.25 –16.00
150 Vis. (143 at 100) 400-405 fl.		
0 p.t.	(e)17.50	(e)17.50
10 p.t.	(e)16.50	(e)16.50
15 p.t.	(e)15.50	(e)15.50
25 p.t.	13.25 –14.00	13.25 –14.00

SOUTH TEXAS

Vis. Color		
Pale Oils: (*Vis. at 100°F.*)		
100 No. 1½-2½	4.50 – 5.00	4.50 – 5.00
200 No. 2-3	6.00 – 6.25	6.00 – 6.25
300 No. 2-3	6.50 – 6.75	6.50 – 6.75
500 No. 2½-3½	7.50 – 7.75	7.50 – 7.75
750 No. 3-4	8.00 – 8.25	8.00 – 8.25
1200 No. 3-4	8.375– 8.75	8.375– 8.75
2000 No. 4	8.50 – 9.25	8.50 – 9.25
Red Oils:		
200 No. 5-6	6.00 – 6.25	6.00 – 6.25
300 No. 5-6	6.50 – 6.75	6.50 – 6.75
500 No. 5-6	7.50 – 7.75	7.50 – 7.75
750 No. 5-6	8.00 – 8.25	8.00 – 8.25
1200 No. 5-6	8.375– 8.75	8.375– 8.75
2000 No. 5-6	8.50 – 9.25	8.50 – 9.25

Note: Red oil prices cover oils with green cast; blue cast red oils are slightly lower in some cases.

MID-CONTINENT (Vis. at 100° F.; F.o.b. Tulsa basis).

Pale Oils: (0 to 10 P.P.) Vis. Color		
60-85—No. 2	5.50	5.50
86-110—No. 2	6.00	6.00
150—No. 3	9.00	9.00
180—No. 3	9.50 –10.00	9.50 –10.00
200—No. 3	10.00 –10.50	10.00 –10.50
250—No. 3	11.00 –11.50	11.00 –11.50
280—No. 3	12.50	12.50
300—No. 3	13.00	13.00
Red Oils:		
180—No. 5	(e)9.00	(e)9.00
200—No. 5	9.00 –10.00	9.00 –10.00
280—No. 5	11.50 –11.75	11.50 –11.75
300—No. 5	(h)12.00	(h)12.00

Note: The following oils, of 15 to 25 p.p., are generally quoted these amounts under 0-10 p.p.; viscous oils, 0.5c; non-viscous, 0.25c. Viscous oils (150-300 vis.), No. 4 color, generally are quoted 0.5c above No. 5 color oils.

CHICAGO (Vis. at 100° F.)

Pale Oils 0 to 10 p.p. Vis. Color		
60-85—No. 2	7.25	7.25
86-110—No. 2	7.75	7.75
150—No. 3	9.00	9.00
180—No. 3	10.00	10.00
200—No. 3	10.50	10.50
250—No. 3	11.50	11.50

Prices Effective	March 6	Feb. 27
CHICAGO (Continued)		
Red Oils:		
180—No. 5	9.00	9.00
200—No. 5	9.50	9.50
250—No. 5	10.50	10.50
280—No. 5	11.50	11.50
300—No. 5	11.75	11.75

Note: Viscous oils, 15 to 30 p.p. are quoted 0.5c lower; 60-85 and 86-110 No. 2 non-viscous oils, 15 to 30 p.p., 0.25c lower. To obtain delivered prices in Chicago, add 0.25c per gal.

Cylinder Stocks

MID-CONTINENT (F.o.b. Tulsa basis)		
Bright Stocks:		
190-200 Vis. at 210° D.	(e)19.00	(e)19.00
150-160 Vis. at 210°D:		
0 to 10 p.p.	14.25 –16.00	14.25 –16.00
10 to 25 p.p.	13.50 –15.00	13.50 –15.00
25 to 40 p.p.	(h) 13.25–13.50	(h) 13.25–13.50
150-160 vis. at 210° E.	12.50 –14.50	12.50 –14.50
120 Vis. at 210° D		
0 to 10 p.p.	(h)'13.75–14.50	(h) 13.75–14.50
25 to 40 p.p.	(e)12.75	(e)12.75
600 S.R. Dark Green	(e)5.50	(e)5.50
600 S.R. Olive Green	(h) 7.00 –7.50	(h) 7.00 –7.50
631 S.R.	(e)12.50	(e)12.50
Black Oil	(h)3.50 –4.00	3.50 – 4.00
CHICAGO (Viscosity at 210°)		
Unfiltered Steam Refined:		
140	9.00	9.00
160	10.00	10.00
200	11.00	11.00
Bright stocks, 160 vis. at 210. No. 8 color:		
0 to 10 p.p.	15.75	15.75
15 to 25 p.p.	14.75	14.75
30 to 40 p.p.	14.25	14.25
E filtered Cyl. Stock	13.50	13.50

Note: To obtain prices delivered in Chicago, add 0.25c per gal.

WESTERN PENNA. (Refiners report no open spot market sales being made to jobbers and give following as their quotations only.)

600 S.R. filterable	8.00 – 9.00	8.00 – 9.00
650 S.R.	10.00 –11.00	10.00 –10.50
600 fl.	10.50 –12.00	10.50 –12.00
630 fl.	13.00 –14.00	13.00 –13.50
Bright stock, 145-155 vis. at 210°, 540-550 flash, No. 8 color:		
10 p.t.	17.50 –19.00	17.50 –19.00
15 p.t.	16.50 –18.00	16.50 –18.00
25 p.t.	15.00 –16.00	15.00 –16.00

Petrolatums

WESTERN PENNA. (In bbls., carloads; in tank cars, 0.5c per lb. less. One refiner reports he equalizes freight with nearest refinery to destination)

Snow White	5.875– 6.125	5.875– 6.125
Lily White	4.875– 5.125	4.875– 5.125
Cream White	3.875– 4.125	3.875– 4.125
Light Amber	2.50	2.50
Amber	2.25	2.25
Red	(e)2.125	(e)2.125

Wax

WESTERN PENNA. (Refiners report no open spot market sales being made to jobbers and give following as their quotations only. In bbls., carloads, New York)		
122-124 A.m.p., w.c. scale	(h)2.55	2.50 –2.55
124-126 A.m.p., w.c. scale	2.55 – 2.60	2.55
OKLAHOMA (In bbls. or burlap bags, carloads)		
124-126 A.m.p., w.c. scale	(h)2.50	(h)2.50
CHICAGO (In bags, carload lots. Melting points are E.M.P. (A.S.T.M.) methods; add 3° F. to convert into A.m.p.)		
Fully refined:		
122-124	4.00	4.00
125-127	(i)4.10	(i)4.10
127-129	(i)4.45	(i)4.45
130-132	(i)4.75	(i)4.75
132-134	(i)5.00	(i)5.00
135-137	(i)5.75	(i)5.75

(a) Prices f.o.b. Central Michigan refinery group basis, for shipment within Mich. Shipments may originate at plants outside Central group. (b) For shipment to Texas and New Mexico destinations: Group 3 prices quoted on northern shipments. (c) Excluding Detroit shipment. (e) One refiner quoting. (f) No price reported. (g) To resellers holding licenses. (h) Two refiners quoting. (i) Same prices quoted in bags or slabs loose. (j) For shipment to Ark. points only. (k) Two suppliers quoting.

TANK WAGON MARKETS

Tank car, tank wagon, dealer, and service station prices for gasoline **do not include taxes;** *they do, however, include inspection fees as shown in general footnote. Gasoline taxes, shown in separate column, include 1c federal, and state taxes; also city and county taxes as indicated in footnotes. Kerosine tank wagon prices also do not include taxes; kerosine taxes, where levied, are indicated in footnotes. Discounts to various classes of buyers also are shown in footnotes. These prices in effect Mar. 6, 1939, as posted by principal marketing companies at their headquarters offices, but subject to later correction.*

S. O. New Jersey

Essolene
(*Regular Grade*)

	Consumer Tank Car	Dealer T.W.	Gaso-line Taxes	Kero-sine T.W.
*Atlantic City, N. J.	6.9	8.7	4	8
*Newark, N. J.	6.9	8.7	4	8
Annapolis, Md.	7.85	9.35	5	9.5
Baltimore, Md.	7.25	8.75	5	8.5
Cumberland, Md.	8.65	11.15	5	10
Washington, D. C.	7.5	9	3	9.5
Danville, Va.	8.45	10.95	6	12.9
Norfolk, Va.	7.25	9.75	6	11.5
Petersburg, Va.	7.55	10.05	6	11.7
Richmond, Va.	7.55	10.05	6	8.7
Roanoke, Va.	8.75	11.25	6	11
Charleston, W. Va.	8.05	10.55	6	12.6
Parkersburg, W. Va.	7.35	9.85	6	11.2
Wheeling, W. Va.	8.35	10.25	6	12.2
Charlotte, N. C.	8.65	11.15	7	12.1
Hickory, N. C.	9.15	11.65	7	12.5
Mt. Airy, N. C.	8.95	11.45	7	12.3
Raleigh, N. C.	8.25	10.75	7	11.6
Salisbury, N. C.	8.75	11.25	7	12.2
Charleston, S. C.	7.25	9.75	7	10.6
Columbia, S. C.	8.25	10.75	7	11.6
Spartanburg, S. C.	8.95	11.45	7	12.4

Discount to undivided dealers: thru territory, except New Jersey points, which see in "Note" below: Dealer t.w. price less 0.5c per gal.

*Effective Dec. 1, 1938, S. O. New Jersey posted a minimum retail resale price of 11.2c thru New Jersey, except Trenton area and Cumberland county.

Note: While the above posted prices continue at Atlantic City and Newark, N. J., dealers will pay a net price of 8.2c per gal. for Essolene. Dealers having pumps marked only Esso, Essolene and "Standard" White gasoline will pay 7.7c per gal. for Essolene.

Price basis to commercial consumers on motor fuels, in tank wagon delivery: To contract accounts, purchasing at least one full compartment at a time by hose connection: Effective March 12, 1937, in New Jersey, and March 8 in Maryland, District of Columbia, and in Arlington and Fairfax Counties in Virginia, on yearly purchases: from 2,500 to 100,000 gals., consumer t.w. price at time and place of delivery; 100,000 gals. per year consumer tank car price, plus 0.5c per gal. Generally consumer t.w. price in foregoing states is equivalent of dealer t.w. price, less 0.5c per gal.; and

Effective May 15, 1937, on Essolene and Esso (by tank wagon) in West Virginia and Virginia (except Arlington and Fairfax Counties, which see above), commercial consumers taking deliveries of 50 gals. (West Va. 100 gals.) or more at one time will be billed at the posted consumer t.w. price. Deliveries less than 50 gals. (West Va. 100 gals.) will be billed at 4c per gal. over posted consumer t.w. price. Generally, posted consumer t.w. price will be equivalent to the dealer price less 0.5c per gal.; and

Effective Jan. 16, 1939 in North Carolina, and Jan. 23, 1939 in South Carolina, on single deliveries of 50 gals. or more, consumer tank wagon price; single deliveries of less than 50 gals., 4c per gal. over consumer t.w. price. Generally, posted consumer t.w. price will be equivalent to dealer price less 0.5c per gal.

Kerosine Discount: 1c off t.w. price for 25 gals., or more, under contract thru territory (Baltimore City contract not necessary) except no discount in state of New Jersey.

Socony-Vacuum Oil Co., Inc.

(*S. O. New York Division*)

	Socony Mobilgas (*Regular Grade*) Consumer Tank Car	"Split" Dealer T.W.	Gaso-line Taxes	Kero-sine T.W.
Metropolitan N. Y. City: Boroughs of Manhattan, Bronx and Brooklyn (Kings and Queens)	6.5	8.4	*5	8
Borough of Richmond (Staten Is.)	6.5	8.4	*5	8
Albany, N. Y.	6.5	8.5	5	7.5
Binghamton, N. Y.	7.5	9.5	5	8.25
Buffalo, N. Y.	7	7.5	5	7
Jamestown, N. Y.	7.25	8.3	5	7.5
Plattsburg, N. Y.	7	9.3	5	7.75
Rochester, N. Y.	7.5	8.5	5	8
Syracuse, N. Y.	7	9	5	7.5
Danbury, Conn.	7.25	9.3	4	8
Hartford, Conn.	6.75	8.8	4	7
New Haven, Conn.	6.75	7.5	4	6
Bangor, Me.	6.75	9	5	7.5
Portland, Me.	6.5	8.5	5	7

Socony-Vacuum Oil Co., Cont'd

Boston, Mass.	6.25	8	4	6.75
Concord, N. H.	7.2	9.5	5	8.25
Lancaster, N. H.	8	10.5	5	9.5
Manchester, N. H.	7.1	9.1	5	8
Providence, R. I.	6.25	8.3	4	7
Burlington, Vt.	7	9.2	5	9
Rutland, Vt.	7.3	9.5	5	8

*Plus 2% city sales tax computed at time of each sale.

Discount to undivided dealers: 0.5c less than "split" dealer t.w.

Price basis to commercial consumers: Effective about Nov. 15, 1936 in New York and New England for tank wagon delivery: monthly purchases of 25,000 gals. or over, pay consumer tank car price at point of delivery, plus 0.5c gal.; monthly purchases of 5,000 to 25,000 gals., pay undivided dealer tank wagon price at point of delivery; monthly purchases of less than 5,000 gals., pay divided dealer tank wagon price at point of delivery. Private consumers pay undivided dealer tank wagon price at point of delivery, plus 2c gal.

Atlantic Refining

Atlantic White Flash Gasoline
(*Regular Grade*)

	Commercial Tank Car	Dealer T.W.	Gaso-line Taxes	Kero-sine T.W.
Philadelphia Pa.	7	8.5	5	10
Pittsburgh	8	9.5	5	10.5
Allentown	7.5	9	5	10.5
Erie	8	8.5	5	10
Scranton	7.5	9	5	10.5
Altoona	8	10	5	10.5
Harrisburg	7	8.5	5	10.5
Williamsport	7.5	9	5	10.5
Dover, Del.	...	8.5	5	10.5
Wilmington	...	8.5	5	9.75
Boston, Mass.	...	8.3	4	7.5
Springfield, Mass.	...	8.8	4	7.5
Worcester, Mass.	...	8.8	4	7.5
Fall River, Mass.	...	8.5	4	8
Hartford, Conn.	...	8.8	4	7
New Haven, Conn.	...	7.5	4	7
Providence, R. I.	...	8.3	4	7
Atlantic City, N. J.	...	8.2	4	8
Camden, N. J.	...	7.6	4	8
Trenton, N. J.	...	8.2	4	8
Annapolis, Md.	...	9.35	5	9.5
Baltimore, Md.	...	8.75	5	8.5
Hagerstown, Md.	...	9.85	5	10
Richmond, Va.	...	10.05	6	8.7
Wilmington, N. C.	...	9.85	7	10.8
Brunswick, Ga.	...	6.5	7	*10.5
Jacksonville, Fla.	...	6.5	8	10

*Georgia has kerosine tax of 1c per gal., not included in above price.

Discount to undivided dealers: Dealer t.w. less 0.5c per gal. except in Georgia and Florida, dealer t.w. and undivided dealer price is same.

Price basis to commercial consumers: consumers under contract, in Penna. and Delaware, effective Mar. 11, 1937, on yearly gasoline purchases taking full compartment hose deliveries, using 100,000 gals. or more per year, tank car price plus 0.5c per gal.; consumers taking less than 100,000 gals., undivided dealer price. Consumers under contract and not under contract, taking less than full compartment delivery, and consumers not under contract taking full compartment delivery, get divided dealer price. Consumers taking less than 25 gals., t.w. delivery, get 4c above undivided dealer price.

Discount on kerosine: Effective Oct. 29, 1936, in Pennsylvania and Delaware, 2c per gal. off t.w. price on t.w. deliveries of 25 gals. or more at one time.

S. O. Ohio

Sohio X-70 Gasoline
(*Regular Grade*)

	Consumer T.W.	†Divided Dlr.	Gaso-line Taxes	Kero-sine T.W.
Ohio Statewide	11	10	5	*12
Counties where some prices are below statewide, affecting all or larger portion of county:				
Columbiana	10.5	8.5	5	....
Butler, Pickaway, Preble and Warren:	10.5	9.5	5	....
Ashland, Carroll, Clinton, Coshocton, Defiance, Fairfield, Franklin, Fulton, Henry, Miami, Paulding, Stark, Tuscarawas, Wayne, Williams and Wood	10	9	5	....
Hamilton	11	9	5	....
Knox	10.5	9	5	....
Lucas	9	7.5	5	....
Ashtabula, Clark, Greene, Mahoning, Montgomery, Trumbull and Washington:	9.5	8.5	5	....
Allen, Auglaize, Darke, Hancock, Logan, Mercer, Putnam, Shelby and Van Wert:	9	8.5	5	....

S. O. Ohio Cont'd

Renown Gasoline
(*Third Grade*)

Ohio Statewide	10.5	9.5	5	....
Counties where some prices are off statewide, affecting all or larger portion of county:				
Carroll, Miami, Pickaway:	10	9	5	....
Columbiana	10.5	8.5	5	....
Clermont	11	9.5	5	....
Ashland, Ashtabula, Clark, Clinton, Coshocton, Defiance, Fairfield, Franklin, Fulton, Greene, Henry, Mahoning, Montgomery, Paulding, Putnam, Stark, Trumbull, Tuscarawas, Washington, Wayne, Williams and Wood:	9.5	8.5	5	....
Allen, Auglaize, Darke, Hancock, Logan, Mercer, Shelby and Van Wert:	9	8.5	5	....
Hamilton	11	9	5	....
Knox	10	8.5	5	....
Lucas	8.5	7	5	....

Kerosine Prices
(*Off Statewide Level*)

Kerosine prices are off statewide level in the following counties:
Allen, Auglaize, Champaign, Columbiana, Darke, Geauga, Greene, Hardin, Logan, Mahoning, Mercer, Preble, Putnam, Shelby, Trumbull and Van Wert *11.5
Paulding *11
Ashtabula *10.5
Fayette, Madison, Pickaway, Portage and Summit *8.5

†This price also to authorized agents, exclusive of 0.5c rental. Discount to undivided dealers: 0.5c less than divided dealer t.w.

*Ohio has kerosine tax of 1c per gal. not included in above prices.

Commercial Tank Wagon Q.D.A. to contract accounts: Effective Oct. 20, 1937, thru Ohio except in counties listed below, on monthly purchases, off posted consumer t.w. price: 0 to 999 gals., 0.5c; 1,000 to 19,999 gals., 1.5c; 20,000 gals. and over, 2.5c. The counties where Q.D.A. differs from statewide are: Allen, Ashtabula, Auglaize, Butler, Champaign, Clinton, Columbiana, Cuyahoga, Darke, Defiance, Erie, Fulton, Geauga, Hamilton, Hancock, Hardin, Henry, Highland, Lake, Logan, Lorain, Lucas, Mahoning, Mercer, Ottawa, Paulding, Putnam, Sandusky, Scioto, Shelby, Trumbull, Union, Van Wert, Warren, Williams and Wood.

Sales tax: Ohio's 3% sales tax, effective Jan. 27, 1935, is added "where assessable, to regular posted prices," S. O. Ohio says.

On kerosine, prices to resellers and commercial consumers are posted generally at 3c per gal. below consumer t.w. price in any quantity, when such prices are on statewide level.

S. O. Kentucky

Crown Gasoline
(*Regular Grade*)

	Consumer T.W.	Net Dlr.	Gaso-line Taxes	Kero-sine T.W.
Covington, Ky.	11.5	8.5	6	9.5
Lexington, Ky.	13	10	6	10
Louisville, Ky.	11.5	8.5	6	9
Paducah, Ky.	12.5	9.5	6	9
Jackson, Miss.	10.5	7.5	7	*9
Vicksburg, Miss.	12	9	7	*8.5
Birmingham, Ala.	12	9	*8	8.5
Mobile, Ala.	12	9	*9	8.5
Montgomery, Ala.	12	10	*9	*9.5
Atlanta, Ga.	11.5	8.5	7	*7.5
Augusta, Ga.	12.5	9.5	7	*8
Macon, Ga.	11	8	7	*9
Savannah, Ga.	10.5	7.5	7	*7
Jacksonville, Fla.	12	9	8	8
Miami, Fla.	10.5	7.5	8	8
Pensacola, Fla.	12	9	*9	8
Tampa, Fla.	11	8	8	8

Kyso Gasoline
(*Third Grade*)

Covington, Ky.	10	7.5	6	....
Lexington, Ky.	11.5	9	6	....
Louisville, Ky.	10	7.5	6	....
Paducah, Ky.	10.5	8	6	....
Jackson, Miss.	8.5	6	7	....
Vicksburg, Miss.	10	7.5	7	....
Birmingham, Ala.	10	7.5	*8	....
Mobile, Ala.	10	7.5	*9	....
Montgomery, Ala.	11	8.5	*9	....
Atlanta, Ga.	10	7.5	7	....
Augusta, Ga.	11	8.5	7	....
Macon, Ga.	9.5	7	7	....
Savannah, Ga.	8.5	6	7	....
Jacksonville, Fla.	10.5	8	8	....
Miami, Fla.	9	6.5	8	....
Pensacola, Fla.	10	7.5	*9	....
Tampa, Fla.	9.5	7	8	....

Above prices include these inspection fees on both gasoline and kerosine unless otherwise specified, per gallon, figured on basis of 50 gallons per barrel:
Alabama, 1/40c on gasoline, 1/2c on kerosine; Arkansas, 1/5c per gal. in a single barrel, 1/20c per gal. in bulk; Florida 1/8c; Illinois, 3/100c; Indiana, 1/5c per gal. in lots up to 25 bbls.; 2/25c per gal. in lots of 25 bbls. or more; Kansas, 1/50c, (3/50c can be charged to meet inspection department expenses); Louisiana, 1/32c; Minnesota, 1/25c; Missouri, 3/100c; Nebraska, 3/100c; Nevada, gasoline, 1/20c; North Carolina, 1/4c; North Dakota, 1/20c; Oklahoma, 2/25c per gal. lots of more than 50 in bbls., 1/5c in lots less than 50 bbls.; South Carolina, 1/8c; South Dakota, 1/10c; Tennessee, 2/5c; and Wisconsin, 3/100c.
Kerosine inspection fee only: Iowa, 3/50c; Michigan, 1/5c per gal.

TANK WAGON MARKETS

Tank car, tank wagon, dealer, and service station prices for gasoline do not include taxes; they do, however, include inspection fees as shown in general footnote. Gasoline taxes, shown in separate column, include 1c federal, and state taxes; also city and county taxes as indicated in footnotes. Kerosine tank wagon prices also do not include taxes; kerosine taxes, where levied, are indicated in footnotes. Discounts to various classes of buyers also are shown in footnotes. These prices in effect Mar. 6, 1939, as posted by principal marketing companies at their headquarters offices, but subject to later correction.

Discounts to all tank wagon consumers: Effective Jan. 4, 1937, thru territory, on Crown gasoline, 3c per gal. below consumer t.w. price; on Kyso, 2.5c below, regardless of quantity purchased, per month

**Taxes*: In the tax column is included these city and county gasoline taxes at the following points: Mobile, 2c city; Birmingham, 1c city; Montgomery, 1c city and 1c county; Pensacola, 1c city. Georgia and Montgomery, Ala. have kerosine taxes of 1c per gal., and Mississippi 0.5c, not included in above prices.

S. O. Indiana

Red Crown (*Regular Grade*)
Stanolind (*Third Grade*)

	Red Crown Cons. T.W.	Dealer Prices Red Crown	Stano-lind	Gaso-line Taxes	Kero-sine T.W.
Chicago, Ill.	11.1	8.1	6.4	4	10
Decatur, Ill.	11.1	8.6	8	4	10
Joliet, Ill.	11.1	8.6	8.4	4	10
Peoria, Ill.	11.1	9.1	8.5	4	10
Quincy, Ill.	10.9	8.9	6.7	4	8.7
Indianapolis, Ind.	11.8	10.3	8.9	5	*10
Evansville, Ind.	11.6	10.1	8.5	5	*10.5
South Bend, Ind.	12.1	10.6	9.2	5	*9
Detroit, Mich.	9.1	7.6	7.1	4	7.1
Grand Rapids, Mich.	10	8.5	8	4	9.7
Saginaw, Mich.	11.8	10.3	8.8	4	9.3
Green Bay, Wis.	11.9	10	9	5	10.3
Milwaukee, Wis.	9.9	8.4	7.3	5	10.2
La Crosse, Wis.	11.5	10	9.5	5	10.4
Minneapolis-St. Paul	11	9.5	8.5	5	10.4
Duluth, Minn.	11.9	10.4	8.9	5	10.8
Mankato, Minn.	11.5	10	9.5	5	8.9
Des Moines, Ia.	10.9	9.4	7.5	4	*9.8
Davenport, Ia.	11.1	9.6	9.1	4	*10
Mason City, Ia.	11.3	9.8	9.3	4	*10.2
St. Louis, Mo.	10.2	8.7	7.5	*4	8
Kansas City, Mo.	10.4	7.9	6.4	*4	7.5
St. Joseph, Mo.	10.4	7.2	6	*4	9.3
Fargo, N. D.	12.7	11.2	10.7	4	11.6
Minot, N. D.	14	12.5	12	4	12.9
Huron, S. D.	12	10.5	10	5	10.9
Wichita, Kans.	9.9	6.6	5.5	4	7.3

*Taxes: in the tax column is included these city and state gasoline taxes at following points: Kansas City, St. Joseph and St. Louis, 1c city tax. Kerosine taxes: Indiana has 4c, Iowa 3c per gal. state tax, not included in above prices.

Discount to commercial consumers: Effective Jan. 1, 1935, thru territory, except Michigan effective Feb. 1, on purchases per month, discount off t.w. prices: all gasolines, 25 to 1,000 gals., at t.w. price; 1,000 gals., or more, 1.5c off t.w. on Ethyl and Red Crown, and 1c on Stanolind (latter effective June 9, 1937). Minimum delivery is 25 gals.

S. O. Nebraska

Standard Red Crown Gasoline
(*Regular Grade*)

	T.W.	Dealer	Gaso-line Taxes	Kero-sine T.W.
Omaha, Neb.	11.5	8.5	6	10.3
McCook	11.5	9.5	6	10
Norfolk	11.9	8.9	6	10.7
North Platte	12.3	9.4	6	11
Scottsbluff	11	8.9	6	11.2

Discounts to commercial consumers: for tank wagon deliveries covered only by Standard Commercial Consumer Contract, effective January 1, 1935.

S. O. Louisiana

Essolene
(*Regular Grade*)

	Consumer Tank Car	Dealer T.W.	Gaso-line Taxes	Kero-sine T.W.
Little Rock, Ark.	7.25	9.75	7.5	10
Alexandria, La.	6.75	9 25	8	*11.5
Baton Rouge, La.	6.75	9.25	8	*9.5
New Orleans, La.	6.75	9.25	*10	*9
Lake Charles, La.	6.75	9.25	8	*11.5
Shreveport, La.	5.5	8	8	*10
Lafayette, La.	7	9.5	8	*11.5
Bristol, Tenn.	10.25	7.25	8	14.5
Chattanooga, Tenn.	9.5	11	8	14
Knoxville, Tenn.	10	12.5	8	14.5
Memphis, Tenn.	8	10.5	8	12.5
Nashville, Tenn.	9	11.5	8	12

*Taxes: New Orleans gasoline tax includes 7c state, 1c federal, and 2c parish tax. Louisiana has kerosine tax of 1c per gal.; in addition New Orleans has 1c parish tax, none of which are included in above prices.

Price basis to dealers: Undivided dealers get dealer price, less 0.5c.

Price basis to commercial consumers: Effective May 15, 1937, thru territory: commercial consumers taking 50 gals. or more at one time will be billed at posted consumer t.w. price; those taking less than 50 gals. at one time will be billed at 4c per gal. over posted consumer t.w. price. Generally, the posted consumer t.w. price will be equivalent to the dealer price less 0.5c per gal.

Humble Oil & Refining Co.

Humble Motor Fuel
(*Regular Grade*)

	*T.W.	S.S.	Gaso-line Taxes	Kero-sine T.W.
Dallas, Tex.	6	10	5	8
Ft. Worth, Tex.	6	10	5	7
Houston, Tex.	8	12	5	8
San Antonio, Tex.	9	13	5	8

U. S. Motor Gasoline
(*Third Grade*)

Dallas, Tex.	5.5	8	5	
Ft. Worth, Texas	5.5	8	5	
Houston, Tex.	6	..	5	
San Antonio, Tex.	6	..	5	

Thriftane
(Leaded, 67 Octane, Purple Gasoline)

Houston	7	10	5
San Antonio	8	11	5

*Price is t.w. price to all classes of dealers and consumers.

Continental Oil

Conoco Bronze (*Regular Grade*)
Demand (*Third Grade*)

	—Dealer Prices— Conoco Bronz-z-z	De-mand	Gaso-line Taxes	Kero-sine ‡T.W.
Denver, Colo.	10.5	9.5	5	11.5
Grand Junc., Colo.	11	10	5	15
Pueblo, Colo.	8	7	5	10.5
Casper, Wyo.	12	11	5	11.5
Cheyenne, Wyo.	10	9	5	13
Billings, Mont.	12	10	6	13
Butte, Mont.	13.5	10.5	6	15.5
Great Falls, Mont.	12	10	6	15.5
Helena, Mont.	13	11	6	15.5
Salt Lake City, Utah	11	10	5	16
Boise, Ida.	13	10.5	6	18
Twin Falls, Ida.	13.5	12.5	6	18
Albuquerque, N. M.	9.5	7.5	†6.5	10
Roswell, N. M.	8	6.5	†6.5	8
Santa Fe, N. M.	9.5	8.5	*7	10.5
Muskogee, Okla.	8	6	5	7
Oklahoma City, Okla.	5.5	4	5	6
Tulsa, Okla.	5	4	5	6
Ft. Smith, Ark.	8.25	5.75	5	7.5
Little Rock, Ark.	9.25	6.625	7.5	8
Texarkana, Ark.	7	6	5	8

†Includes city tax of 0.5c.
*Includes 1c city tax.
‡Prices are in t.w. deliveries to consumers and dealers.

S. O. California

Standard Gasoline
(*Regular Grade*)

	T.W.	S.S.	Gaso-line Taxes	Kero-sine T.W.
San Francisco, Cal.	13.5	14.5	4	11.5
Los Angeles, Cal.	13	14	4	10
Fresno Cal.	14.5	15.5	4	12.5
Phoenix, Ariz.	15.5	16.5	6	*12.5
Reno, Nev.	15.5	16.5	5	13.5
Portland, Ore.	14	15	6	13.5
Seattle, Wash.	14	15	6	13.5
Spokane, Wash.	17	18	6	16.5
Tacoma, Wash.	14	15	6	13.5

Flight Gasoline
(*Third Grade*)

San Francisco, Cal.	12	13	4	....
Los Angeles, Cal.	11.5	12.5	4	....
Fresno, Cal.	13	14	4	....
Reno, Nev.	14	15	5	....
Phoenix, Ariz.	14,	15	6	....
Portland, Ore.	12.5	13.5	6	....
Seattle, Wash.	12.5	13.5	6	....
Spokane, Wash.	15.5	16.5	6	....
Tacoma, Wash.	12.5	13.5	6	....

*Arizona has kerosine tax of 5c per gal., not included in above prices.

Discount to dealers, thru territory: on gasoline, off t.w. price on Standard Ethyl and Standard Gasoline, to 100% dealers, 3c; to split dealers in California only; 2c; on Flight gasoline, 100% dealers, 2c; and split dealers in California only; 2c.

On Stanavo Aviation Gasoline, to all classes of dealers, 3c off t.w.

To commercial consumers: off tank wagon price: on single deliveries of 40 gallons and over. Stanavo Aviation, Standard Ethyl and Standard Gasolines, 3c. Flight Gasoline, 2c per gallon. Tank wagon delivery, less than 40 gals., 1c per gal. above posted t.w. price. Discounts on kerosine: in tank cars, 3c off tank truck price; plant deliveries to jobbers, 2.5c below tank truck price.

Canada

PRICES OF IMPERIAL OIL LTD.

Per Imperial Gallon, which is 1.2 U. S. Gallons

3-Star Imperial Gasoline

	T.W.	(*Regular Grade*) Gasoline Taxes	Kero-sine T.W.
Hamilton, Ont.	15	6	15.5
Toronto, Ont.	15	6	15.5
Brandon, Man.	21.1	7	22.3
Winnipeg, Man.	19.5	7	20.5
Regina, Sask.	19	7	21
Saskatoon, Sask.	21.3	7	23.3
Edmonton, Alta.	19.5	7	21.5
Calgary, Alta.	16.5	7	18.5
Vancouver, B. C.	16	7	23
Montreal, Que.	14	6	14.5
St. John, N. B.	13.5	10	17.5
Halifax, N. S.	13.5	10	17.5

Discounts to undivided dealers, 1c off t.w. price, except Maritime Provinces where undivided dealers pay t.w. price. Divided dealers pay t.w. price, thru territory.

Aviation Gasoline

Following are tank car, tank wagon or dealer prices, as indicated, of aviation gasoline in several marketing territories.

S. O. OHIO
Thru Ohio
Esso Aviation

	Consumer T.W.	Gasoline Taxes
74 octane	15.5	5
80 octane	16.5	5
87 octane	17.5	5

Discounts: For delivery on contract to hangar operators and resellers: 2c below consumer posted t.w. price, shown above.

S. O. INDIANA
Stanavo Ethyl Aviation Gasoline
73 Octane Number

Chicago, Ill.	14.9
Detroit, Mich.	16.5
Milwaukee, Wis.	15.1
Minneapolis, Minn.	15.3
St. Louis, Mo.	14.5
Kansas City, Mo.	14.2
Fargo, N. D.	16.5
Huron, S. D.	15.8

*Includes 1c city tax.

HUMBLE OIL & REFINING CO.
Aviation Gasoline

	Tank Car
Baytown, Tex.	8.5

CONTINENTAL OIL CO.
Conoco Special Gasoline

	Dealer Price	Gasoline Taxes
Denver, Colo.	14.5	5
Cheyenne, Wyo.	15	5
Helena, Mont.	16	6
Salt Lake City, Utah	17.5	5
Albuquerque, N. M.	14	*6.5

*Includes city tax of 0.5c.

S. O. CALIFORNIA
Stanavo Aviation Gasoline

	T.W.
Phoenix, Ariz.	17.5
Los Angeles, Cal.	15
San Francisco, Cal.	15.5
Reno, Nev.	17.5
Portland, Ore.	16
Seattle, Wash.	16
Spokane, Wash.	10

Note: For discounts, etc., see note under Standard and Flight gasoline above.

Naphtha (In Tank Wagon)

S. O. NEW JERSEY
Posted Tank Wagon Prices

	Mineral Spirits	V.M.&P.
Newark, N. J.	11.5	15.5
Baltimore, Md.	15.5	....
Washington, D. C.	15	....

Discounts: Buyers taking following quantities at one time, get these discounts: Newark, 2c per gal. on 200 gals. or more; less than 200 gals., 0.5c higher price. Baltimore 2c off on 25 to 100 gals. and 3c on over 100 gals. Washington, 2c off to contract buyers.

SOCONY-VACUUM OIL CO.

Buffalo, N. Y.	10.5	12
*New York City	9.5	10.5
Rochester, N. Y.	12	12
Syracuse, N. Y.	12	14.5
Boston, Mass.	11	11
Bridgeport, Conn.	11	11.5
Hartford, Conn.	10.5	11
Providence, R. I.	11	12

*Prices apply to consumers only in quantities over 1,000 gals. annually. For quantities under 1,000 gals. annually, add 0.5c per gal.

TANK WAGON MARKETS

Tank car, tank wagon, dealer, and service station prices for gasoline **do not include taxes;** *they do, however, include inspection fees as shown in general footnote. Gasoline taxes, shown in separate column, include 1c federal, and state taxes; also city and county taxes as indicated in footnotes. Kerosine tank wagon prices also do not include taxes; kerosine taxes, where levied, are indicated in footnotes. Discounts to various classes of buyers also are shown in footnotes. These prices in effect Mar. 6, 1939, as posted by principal marketing companies at their headquarters offices, but subject to later correction.*

ATLANTIC REFINING CO.

Philadelphia, Pa.	11.5	12.5
Lancaster, Pa.	13	14
Pittsburgh, Pa.	12.5	14.5

Note: Prices for Mineral Spirits also apply to Stoddard Solvent; and prices for V.M.&P. Naphtha apply also to Light Cleaners Naphtha

S. O. OHIO

	S.R. Solvent	V.M.&P. Naphtha
Thru Ohio	12.5	13.5

Note: V.M.&P. Naphtha prices also apply on Dry Cleaners naphtha and special Varnolene; Varnolene and Sohio Solvent 0.5c below these prices. Discounts to contract consumers off t.w. price; 300 to 999 gals., 0.5c; 1,000 to 2,499 gals., 0.75c: 2,500 to 4,999 gals., 1c; 5,000 or more gals., 1.5c.

S. O. INDIANA

(Prices include state and federal taxes)

	Oleum Spirits	V.M.&P. Naphtha	Stanisol
Chicago, Ill.	16.2	16.5	15.9
Detroit, Mich.	19.2	18.2	19.7
Kansas City, Mo.	13.9	14.9	14.4
St. Louis, Mo.	14.2	15.2	12.9
Milwaukee, Wis.	18.8	19.8	19.3
Minneapolis, Minn.	19	20	17.7

Note: All prices, with exception of Missouri points, include state tax. Prices shown are base prices, before discounts.

Naphtha (In Tank Cars)

In Tank Cars (F. o. b. refinery or seaboard terminal except Ohio, delivered price.)

	V.M.&P. Naphtha	Solvent
Baltimore	10.5	9.5
New York Harbor	10	9
Philadelphia district	10.5	9
Boston	10.5	9.5
Providence	10.5	9.5
†Ohio points, delivered	8.5	*8

*This is on rubber solvent.

†In Ohio, prices on D.C. naphtha and special Varnolene are same as V.M.&P.; on Varnolene and Sohio Solvent, prices are 0.125c less than on V.M.&P.

Price Changes

Dates and amounts of changes. See table for full current prices.

Socony-Vacuum Oil—Socony Mobilgas:

Buffalo t. c. cut 0.25c, dealer t. w. cut 1c, March 1.

Jamestown dealer t. w. cut 0.7c, Feb. 20.

Syracuse dealer t. w. up 0.5c, Feb. 27.

Boston dealer t. w. cut 0.3c, Feb. 24.

S. O. Ohio—Sohio X-70 and Renown:

Consumer t. w. cut 1c, thru Ashtabula, Mahoning and Trumbull counties, March 3.

Consumer t. w. and dealer prices cut 1c, thru Coshocton, Henry, and Wood counties, March 1.

Consumer t. w. and dealer prices cut 0.5c, thru Wayne county, Feb. 27.

Sohio X-70:

Consumer t. w. cut 2c, dealer prices cut 1.5c, Putnam county, March 3.

Renown:

Consumer t. w. cut 1.5c, dealer prices cut 1c, Putnam county, March 3.

S. O. Kentucky—Kyso Gasoline:

Macon t. w. and dealer price up 1c, Feb. 25.

S. O. Louisiana—Kerosine:

Little Rock t. w. cut 1c, Feb. 25.

Gasoline:

Commercial consumer policy for New Orleans revised, to conform to rest of territory, Feb. 24. For details, see footnote in table.

Continental Oil—Demand Gasoline:

Little Rock dealer price cut 1c, Feb. 24.

Kerosine:

Little Rock cut 1c, Feb. 24.

Imperial Oil—3 Star Imperial Gasoline:

Winnipeg t. w. cut 1c, March 1.

Kerosine:

Winnipeg t. w. cut 0.2c, March 1.

Naphtha

S. O. Ohio—V. M. & P., D. C. Naphthas and Special Varnolene:

Tank car prices cut 0.375c, thru Ohio, March 3. Prices of Varnolene, Sohio Solvent and Rubber Solvent unchanged.

'Gas' Prices in 50 Cities

Following information on dealer and retail gasoline prices in 50 cities, as of Feb. 1, 1939, was obtained from sources deemed reliable but N.P.N. assumes no responsibility for their accuracy.

(Figures in Cents Per Gallon)	Dealer's Net Price To Dealer	'Gas' Tax Indicated (Incl. 1c Federal)	Apparent Prevailing Posted Retail Price (Incl. Tax)
Portland, Me.	8.5	3.20	5.0	16.70
Manchester, N. H.	9.0	4.50	5.0	18.50
Burlington, Vt.	9.20	4.0	5.0	18.20
Boston, Mass.	8.0	3.0	4.0	15.00
Providence, R. I.	8.0	3.0	4.0	15.00
Hartford, Conn.	8.4	3.1	4.0	15.50
Buffalo, N. Y.	7.0	2.4	5.0	14.40
New York, N. Y.	7.9	3.4	5.0	16.30
Newark, N. J.	7.7	3.5	4.0	15.20
Philadelphia, Pa.	7.5	1.0	5.0	13.50
Dover, Del.	7.0	2.0	5.0	14.00
Baltimore, Md.	8.25	2.55	5.0	15.80
Washington, D. C.	8.5	4.0	3.0	15.50
Charleston, W. Va.	10.05	4.05	6.0	20.10
Norfolk, Va.	9.25	3.55	6.0	19.80
Charlotte, N. C.	10.65	4.05	7.0	21.70
Charleston, S. C.	8.75	3.75	7.0	19.50
Atlanta, Ga.	8.50	3.5	7.0	19.00
Jacksonville, Fla.	8.0	3.0	8.0	19.00
Birmingham, Ala.	9.0	4.0	8.0*	21.00
Vicksburg, Miss.	9.0	5.0	7.0	21.00
Memphis, Tenn.	10.0	4.8	8.0	22.80
Lexington, Ky.	10.0	3.5	6.0	19.50
Youngstown, O.	8.5	2.5	5.0	16.00
South Bend, Ind.	10.6	4.4	5.0	20.00
Chicago, Ill.	8.1	4.4	4.0	16.50
Detroit, Mich.	7.6	2.6	4.0	14.20
Milwaukee, Wis.	8.4	3.3	5.0	16.70
Twin Cities, Minn.	9.5	3.5	5.0	18.00
Fargo, N. D.	11.2	3.5	4.0	18.70
Huron, S. D.	10.5	4.2	5.0	19.70
Omaha, Neb.	10.0	3.5	6.0	19.50
Des Moines, Ia.	9.4	4.3	4.0	17.70
St. Louis, Mo.	8.7	3.5	4.0*	16.20
Wichita, Kan.	6.6	2.3	4.0	12.90
Tulsa, Okla.	5.0	4.0	5.0	14.00
Little Rock, Ark.	9.25	4.75	7.5	21.50
New Orleans, La.	8.75	4.05	10.0†	22.80
Houston, Texas	9.5	4.5	5.0	19.00
Albuquerque, N. M.	9.5	4.5	6.5‡	20.50
Denver, Col.	10.5	4.5	5.0	20.00
Casper, Wyo.	12.0	5.0	5.0	22.00
Butte, Mont.	13.5	4.5	6.0	24.00
Boise, Ida.	13.0	4.0	6.0	23.00
Salt Lake City, Utah	11.00	4.0	5.0	20.00
Reno, Nev.	12.50	4.0	5.0	21.50
Phoenix, Ariz.	12.50	4.0	6.0	22.50
San Francisco, Cal.	10.50	4.0	4.0	18.50
Portland, Oreg.	11.0	4.0	6.0	21.00
Spokane, Wash.	14.0	4.0	6.0	24.00

*Includes 1c per gallon city tax. †Includes 2c per gallon city tax. ‡Includes 0.5c per gallon city tax.

TANK WAGON MARKETS, HEATING OILS

Prices in Effect March 6, 1939

Following are posted tank wagon prices of various grades of heating oil at the points shown in various territories. Prices are in cents per gallon.

	No. 1	No. 2	No. 4
S. O. NEW JERSEY			
Atlantic City, N. J.	8.0	6.0	6.0
Newark	8.0	6.0	6.0
Annapolis, Md.	....	6.5	....
Baltimore	7.5	6.5	6.0
Washington, D. C.	7.25	6.75	6.75
Norfolk, Va.	7.0	6.0	6.0
Petersburg	7.25	6.25	....
Richmond	7.25	6.25	6.25
Charlotte, N. C.	8.75	7.75	....
Hickory	....	8.25	....
Raleigh	8.75	7.25	....
Charleston, S. C.	8.5	7.0	....
Columbia	9.5	8.0	....
Spartanburg	10.2	8.7	....
SOCONY-VACUUM OIL CO. INC. (S. O. New York Division)			
New York City	5.75	5.75	5.75
Albany, N. Y.	6.00	6.00	6.00
Rochester, N. Y.	7.25	7.25	7.25
Boston, Mass.	5.75	5.75	5.75
Bangor, Me.	6.50	6.50	6.50
Manchester, N. H.	6.50	6.50	6.50
Burlington, Vt.	6.75	6.75	6.75
Hartford, Conn.	6.00	6.00	6.00
New Haven, Conn.	6.00	6.00	6.00
Providence, R. I.	5.75	5.75	5.75

Note: Prices for No. 1 fuel in Socony-Vacuum territory same as for kerosine which see in tank wagon table for various cities; prices change with kerosine.

	No. 1	No. 2	No. 3	No. 4
ATLANTIC REFINING Cont'd				
Philadelphia, Pa.	7.75	6.00	6.00	6.00
Allentown, Pa.	8.50	6.50	6.50	6.50
Wilmington, Del.	7.75	5.50	5.50	5.50
Springfield, Mass.	7.5	6	....	
Worcester, Mass.	7.5	6.00	....	6.00
Hartford, Conn.	7.00	6.00	....	6.00
S. O. OHIO				
Columbus Division and Cleveland	7.50	7.50	7.00	
City of Lima	8.00	8.00	7.00	
Rest of Ohio	8.00	8.00	7.50	

Note: S. O. Ohio prices are for full compartment hose dumps, bucket dumps are 0.5c per gallon higher.

S O. INDIANA

Stanolex Fuel and Furnace Oils

	No. 1 Fuel	Stanolex Furnace
Chicago	(a)6.75	6.75
Indianapolis	...	(b)7.8
Detroit	...	7.1
Milwaukee	8.4	7.7
Minneapolis	7.8	7.8
St. Louis	7.7	(c)6.7
Kansas City	6.8	6.8

(a) For 400 gals. and over; 150 to 399 gals.,7.25c; 1 to 149 gals., 8.25c.

(b) Excluding 4c state tax.

(c) For 400 gals. & over; 100 to 399 gals., 7c; 1 to 99 gals., 8c.

Note: Small-lot deliveries of light fuel oils range up to 2c higher than above quotations.

Group 3 Freight Rates

	Gasoline-Kerosine Cents per Cwt.	Gasoline-Kerosine Cents per gal. 6.6 lbs.	Distillate-Gas Oil-Fuel Oil Cents per Cwt.	Distillate-Gas Oil-Fuel Oil Cents per gal. 7.4 lbs.
Chicago, Ill.	40	2.640	32	2.368
Decatur, Ill.	39	2.574	31	2.294
Joliet, Ill.	40	2.640	32	2.368
Peoria, Ill.	39	2.574	31	2.294
Quincy, Ill.	36	2.376	29	2.146
Indianapolis, Ind.	48	3.168	39	2.886
Evansville, Ind.	46	3.036	37	2.738
South Bend, Ind.	53	3.498	42	3.108
Detroit, Mich.	64	4.224	51	3.774
Gd. Rapids, Mich.	62	4.092	50	3.700
Saginaw, Mich.	66	4.356	53	3.922
Green Bay, Wis.	51	3.366	41	3.034
Milwaukee, Wis.	43	2.838	34.5	2.553
LaCrosse, Wis.	46	3.036	37	2.738
Min'ap'ls-St. Paul	46	3.036	37	2.738
Duluth, Minn.	52	3.432	41.5	3.071
Mankato, Minn.	46	3.036	37	2.738
Des Moines, Ia.	36	2.376	29	2.146
Davenport, Ia.	39	2.574	31	2.294
Mason City, Ia.	42	2.772	33.5	2.479
St. Louis, Mo.	33	2.178	26.5	1.961
Kansas City, Mo.	28	1.848	22.5	1.665
St. Joseph, Mo.	28	1.848	22.5	1.665
Fargo, N. D.	63	4.158	50.5	3.737
Minot, N. D.	83	5.478	66.5	4.921
Huron, S. D.	53	3.498	42.5	3.145

SEABOARD MARKETS, EXPORT AND COASTWISE

All prices on this page are publisher's opinion of open market quotations or sales, for spot shipment (10 to 15 days). In cargo markets, spot shipment is 90 days. Prices in cents per gallon, except heavy fuel oil in dollars per barrel, in tank car lots, f.o.b. refineries or seaboard terminals in districts designated, unless otherwise noted. Federal, state or municipal taxes not included. Prices quoted apply on products made from legally produced crude. Unless otherwise noted, gasoline octane ratings are determined by C.F.R. Motor method, A.S.T.M. D-357-33T; and lubricating oil specifications determined according to A.S.T.M. methods, unless otherwise noted.

Eastern Domestic

(Inter-refinery and export prices not included.)

MOTOR GASOLINE

Prices Effective	March 6	
District:	**60-64 Oct.**	**65 Oct. & Above**
N. Y. harbor	5.875– 6.25	5.875– 6.50
(b)N. Y. harbor	5.625– 6.00	5.625– 6.25
Philadelphia	6.00 – 6.50	6.00 – 6.50
Baltimore	6.00 – 6.50	6.00 – 6.50
Norfolk	6.50 – 7.00	6.50 – 7.00
Wilmington, N. C.	6.50 – 7.00	6.50 – 7.00
Charleston, S. C.	6.50 – 7.00	6.50 – 7.00
Savannah	6.50 – 7.00	6.50 – 7.00
Jacksonville	6.00 – 7.00	6.50 – 7.00
Portland	6.25 – 6.50	6.50 – 7.00
Boston	6.00 – 6.50	6.25 – 6.50
Providence	6.00 – 6.50	6.25 – 6.50

WATER WHITE KEROSINE

District:			
N. Y. harbor	4.50 –4.75	Charleston	5.00–5.25
(b) N. Y. harbor	4.375–4.50	Savannah	5.00–5.25
Philadelphia	4.75–5.00	Jacksonville	5.00–5.25
Baltimore	5.00–5.25	Portland	5.60
Norfolk	5.00–5.25	Boston	4.50–4.75
Wilmington, N. C.	5.00–5.25	Providence	4.50–4.75

(c) FUEL OILS

	N. Y. harb.	N. Y. harb. barges
No. 1	4.50 – 4.75	4.375– 4.50
Nos. 2-3	4.00 – 4.25	3.75 – 4.125
No. 4	3.75 – 4.25	3.625– 4.125
No. 5	(s)$1.15	.....
No. 6	$0.95	.....

	Phila. dist.	Balt. dist.
No. 1	4.75 – 5.00	5.00 – 5.25
Nos. 2-3	4.25	4.25
No. 4	4.00 – 4.25	4.00 – 4.25
No. 5	$1.15	$1.15
No. 6	$0.95	$0.95

	Bost. dist.	Prov. dist.
No. 1	4.50 – 4.75	4.50 – 4.75
Nos. 2-3	4.00 – 4.25	4.00 – 4.25
No. 4	4.00 – 4.25	4.00 – 4.25
No. 5	$1.25	$1.15
No. 6	$0.95	$0.95

District:	(d)Bunker C Fuel	(d) Diesel Oil
N. Y. harbor	(f)$0.95	(g)$1.65
Philadelphia	(f)$0.95	(g)$1.65
Baltimore	(f)$0.95	(e)$1.65
Norfolk	(e)$0.95	$1.65
Charleston	$0.90	$1.65
Savannah	(e)$0.90	$1.785
Jacksonville	(e)$0.90	$1.785
Tampa	(e)$0.85	$1.785
Portland	$1.05	$1.75
Boston	(f)$0.95	(g)$1.65
Providence	$0.95	$1.65

	Gas Oil 28-34 Gravity	Diesel Oil Shore Plants
N. Y. harbor	4.00 – 4.125	4.00
Philadelphia dist.	4.25	....
Baltimore dist.	4.25	....
Norfolk dist.	4.25	....
Savannah dist.	....	4.25
Jacksonville dist.	....	4.25

Pacific Export

(i) (Quotations are at seaboard, Los Angeles, in cargo lots, cents per gal., except where otherwise noted.)

Prices Effective	March 6	Feb. 27
U. S. Motor, under 65 oct.	4.375– 4.50	4.375– 4.50
400 e.p. blend, under 65 oct.	4.50 – 4.625	4.50 – 4.625
400 e.p. blend 65 oct. & above	4.75 – 4.875	4.75 – 4.875
(h) 38-40 gravity, w.w. kerosine	4.25 – 4.50	4.25 – 4.50
41-43 gravity, w.w. kerosine	4.50 – 4.75	4.50 – 4.75
44 gravity, w.w. kerosine	5.00 – 5.25	5.00 – 5.25
In Cargo lots, per bbl.		
Diesel fuel, 24° & above	$1.15 –$1.25	$1.15 –$1.25
Diesel fuel, under 24°	$0.875–$1.05	$0.875–$1.05
(j) 30-34 gravity, diesel (gas oil)	$1.25 –$1.30	$1.25 –$1.30
(k) Grade C fuel oil	$0.65 –$0.70	$0.65 –$0.70

Prices Effective	March 6	Feb. 27
In Ships' Bunkers, or deep tank lots, per bbl.:		
(j)Diesel fuel oil	$1.425–$1.45	$1.35 –$1.55
(k)Grade C fuel oil	$0.70 –$0.90	$0.70 –$0.90
Cased Goods: (Per case)		
U. S. Motor	$1.40 –$1.50	$1.40 –$1.50
400 e.p. blend, under 65 octane	$1.50 –$1.60	$1.50 –$1.60
375-400 e.p. blend, 65 oct. & above	$1.60 –$1.70	$1.60 –$1.70
(h)40-43 gravity, w.w. kerosine	$1.30 –$1.40	$1.30 –$1.40
Kerosine, p.w.	$1.25 –$1.35	$1.25 –$1.35

New York Export

(Cents per gal. in bbls. F.a.s. New York)

CYLINDER OILS (Pennsylvania Products)

Bright stock:		
Light, 25 p.t.	22.50	22.50
Neutral oil:		
200 3 color, 25 p.t.	22.75	22.75
150 3 color, 25 p.t.	20.75	20.75
600 s.r., unfiltered	15.50	15.50
650 s.r., unfiltered	16.50	16.50
600 fl., s.r.	18.00	18.00
630 fl., s.r.	20.50	20.50

Wax, Domestic *and* Export

(A.S.T.M. Tests. Melting points, however, are A.M.P., 3° higher than E.M.P. Export prices, f.a.s., carloads. Domestic prices, f.o.b. refineries in New Orleans & New York districts in bags, carloads, with 0.2c discount allowed for shipment in bulk, except where noted below. Scale solid; fully refined, slabs in bags)

Prices Effective	March 6	
	New York	
	Domestic	**Export**
124-6 Y.C. scale	2.55 – 2.60	2.55 – 2.60
122-4 W.C. scale	2.55 – 2.60	2.55 – 2.60
124-6 W.C. scale	2.55 – 2.60	2.55 – 2.60
123-5 Fully rfd.	3.75	3.375
125-7 Fully rfd.	3.90	3.50 – 3.625
128-30 Fully rfd.	(l)4.00	3.65 – 3.75
130-2 Fully rfd.	(l)4.35	4.00
133-5 Fully rfd.	(l)4.65	4.40 – 4.50
135-7 Fully rfd.	(l)4.90	4.75 – 5.00
	New Orleans	
	Domestic	**Export**
124-6 Y.C. scale	2.55 – 2.60	2.55 – 2.60
122-4 W.C. scale	2.55 – 2.60	2.55 – 2.60
124-6 W.C. scale	2.55 – 2.60	2.55 – 2.60
123-5 Fully rfd.	3.75	3.375
125-7 Fully rfd.	3.90	3.50 – 3.625
128-30 Fully rfd.	(l)4.00	3.65 – 3.75
130-2 Fully rfd.	(l)4.35	4.00
133-5 Fully rfd.	(l)4.65	4.40 – 4.50

Gulf Coast

(F.o.b. ship, Gulf oil terminals; minimum 20,000 bbls.; representing traders' opinions)

Prices Effective	March 6	Feb. 27
For Domestic shipment:		
MOTOR GASOLINE		
59 oct. & below	4.25 – 4.50	4.25 – 4.50
60-64 oct.	4.25 – 4.625	4.25 – 4.625
65-67 octane	4.50 – 4.875	4.50 – 4.875
68-70 octane	4.875– 5.125	4.875– 5.125
FUEL OILS		
No. 1	3.625– 4.00	3.625– 4.00
No. 2	3.25 – 3.375	3.25 – 3.375
KEROSINE		
41-43 gravity, w.w.	3.75 – 4.00	3.75 – 4.00
For Export Shipment:		
GASOLINE		

Gasoline:	March 6 60-62 Gravity, 400 e.p.	61-63 Gravity, 390 e.p.	64-66 Gravity, 375 e.p.
60 octane	4.25 – 4.375	4.25 – 4.375	4.25 – 4.375
61 octane	4.25 – 4.40	4.25 – 4.40	4.25 – 4.40
62 octane	4.25 – 4.45	4.25 – 4.45	4.25 – 4.45
63 octane	4.375– 4.50	4.375– 4.50	4.375– 4.50
64 octane	4.375– 4.55	4.375– 4.55	4.375– 4.55
65 octane	4.50 – 4.75	4.50 – 4.75	4.50 – 4.75
66 octane	4.625– 4.75	4.625– 4.75	4.625– 4.75
67 octane	4.625– 4.875	4.625– 4.875	4.625– 4.875
68 octane	4.75 – 5.00	4.75 – 5.00	4.75 – 5.00
70 octane	5.00 – 5.50	5.00 – 5.50	5.00 – 5.50

Prices Effective	March 6	Feb. 27
For Export Shipment:		
KEROSINE		
44 gravity, w.w.	4.125– 4.25	4.125– 4.25
41-43 gravity, w.w.	3.75 – 4.00	3.75 – 4.00
41-43 gravity, p.w.	3.75 – 4.00	3.75 – 4.00
GAS AND BUNKER OILS		
For Export Shipment:		
Gas Oil (m):		
Below 43 diesel index	3.25 – 3.375	3.25 – 3.375
43-47 diesel index	3.375– 3.625	3.375– 3.625
48-52 diesel index	3.375– 3.625	3.375– 3.625
53-57 diesel index	3.50 – 3.75	3.50 – 3.75
58 & above	3.625– 3.875	3.625– 3.875
For Domestic or Export Shipment:		
Diesel Oil Ship's bkrs.	(o)$1.45	(o)$1.45
Grade C bunker oil for ship's bunkers	(o)$0.75	(o)$0.75
Grade C bunker oil, in cargoes	$0.675–$0.70	(t)$0.65–$0.70

MID-CONTINENT LUBRICATING OILS

(Cents per gal. at Gulf; in bbls., f.a.s.; in bulk, f.o.b terminals)

	March 6	
	Barrels	**Bulk**
190-200 vis. D. 210 brt. stock	(p) 21.50 –22.50	17.60 –17.80
150-160 vis. D 210 brt. stock:		
0-10 p.p.	18.00 –18.25	13.00 –14.30
10-25 p.p.	17.50 –17.75	12.50 –14.25
150-160 vis. E. 210 brt. stock	17.25 –17.50	13.00 –14.50
120 vis. D 210 brt. stock	17.25 –17.50	13.00 –14.50

	March 6 Bulk	Feb. 27 Bulk
180 vis. No. 3 color neutral:		
0-10 p.p.	9.80 –10.50	9.80 –10.50
15-30 p.p.	9.50 –10.00	9.50 –10.00
200 vis. No. 3 color neutral:		
0-10 p.p.	10.30 –10.50	10.30 –10.50
15-30 p.p.	9.50 –10.00	9.50 –10.00
600 s.r. olive green	9.00 –11.25	9.00 –11.25
600 s.r. dark green	7.00 – 9.25	7.00 – 9.25

SOUTH TEXAS LUBRICATING OILS

(Vis. at 100° cold test 0, bulk export shipment, f.o.b. terminals.)

Unfiltered Pale Oils: Vis. Color		
100 No. 3	4.50 – 4.75	4.50 – 4.75
200 No. 3	6.00 – 6.25	6.00 – 6.25
300 No. 3	6.50 – 6.75	6.50 – 6.75
500 No. 3½	7.50	7.50
750 No. 4	8.00 – 8.25	8.00 – 8.25
1200 No. 4	8.375– 8.75	8.375– 8.75
2000 No. 4	8.50 – 9.00	8.50 – 9.00
Red Oils: Vis. Color		
100 No. 5-6	4.50 – 4.75	4.50 – 4.75
200 No. 5-6	6.00 – 6.25	6.00 – 6.25
300 No. 5-6	6.50 – 6.75	6.50 – 6.75
500 No. 5-6	7.50	7.50
750 No. 5-6	8.00 – 8.25	8.00 – 8.25
1200 No. 5-6	8.375– 8.75	8.375– 8.75
2000 No. 5-6	8.50 – 9.00	8.50 – 9.00

Note: Red oil prices cover oils with green cast; prices for blue cast red oils are slightly lower in some cases.

Tanker Rates

(Approximate freight rates to Continental ports shillings per ton of 2240 lbs., British sterling: U. S. ports cents per bbl.)

Rates Effective March 6

	Crude &/or Fuel		Refined Oil &/or Spirits	
	Last Paid	Owners Ask	Last Paid	Owners Ask
Gulf-U.K./Cont.(q)	10/3	10/-10/6	11/	11/3-11/6
Aruba-U.K./Cont.(q)	8/9	9-9/6	9/	9/3-9/6
Gulf-N. Atlantic (r) (not E. of N.Y.): Hvy. Crude & fuel, (10 to 19.9 gravity)	17c	17c	....	....
Light Crude, (30 Grav. or Lighter)	14c	15c	....	....
Gasoline	....	....	14.5c	15c
Kerosine	....	....	15.5c	16c
Light Fuel	....	....	16.5c	17c

(b) In barge lots. (c) Fuel oils meet specifications of U. S. Commercial Standards CS12-35. (d) In ships' bunkers. (e) For barging, add 5c per bbl. (f) For barging, add 5c to 6c per bbl. (g) For barging, add 6.5c to 7.5c per bbl. (h) 150 fire point. (i) For San Francisco cargo prices, add 5c per bbl. to cargo prices shown above. (j) Pacific Specification 200. (k) Pacific Specification 400. (l) Shipment either in bags or in bulk. (m) Less than ½ of 1% sulfur. (o) Barging 5c per bbl. additional at some ports. (p) Second-hand barrels. (q) Continental ports in range between Bordeaux and Hamburg, both inclusive. (r) Venezuela loading, same rate; Tampico, 2c to 3c per bbl. additional. (s) Low pour test, low viscosity, No. 5 generally quoted at $1.25. (t) Correction: Thru clerical error, price for Feb. 27 was shown as $0.675-$0.70. Correct price that date was $0.65-$0.70.

CRUDE OIL MARKETS

Prices in $ per bbl. of 42 U. S. gals. at the well. A. P. I. gravity. Prices are effective as of 7 a. m. of dates as given

EASTERN FIELDS

Posted by Joseph Seep Purchasing Agency
(Effective March 6, 1939, except Corning Jan. 24, 1939)

Penna. Grade Oil in Southwest Penna. Pipe Lines.....$1.65
Penna. Grade Oil in Eureka Pipe Lines (West Virginia).....$1.59
Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O.).....$1.55
Corning Oil in Buckeye Pipe Lines (Ohio)..$1.02

Posted by Other Companies

Tide Water Associated Oil Co.
Bradford-Allegany district (Penna. and N. Y.) (Effective March 6, 1939).....$2.00
*The Pennzoil Co.: (Effective March 6, 1939)
Penna. Grade Oil in National Transit Lines *1.93
*The Pennzoil Co. posts $1.93 in Cochran, Franklin, Hamilton and Doolittle, Pa. fields, prices in other lower districts range down to $1.88 per bbl. at well.

MICHIGAN

Posted by Pure Oil Co.
Midland, Midland County (Oct. 14, 1938)....$0.925

Posted by Simrall Corp.
(Effective Jan. 6, 1939)
Crystal, Greendale, Porter and equal grades..$0.925
Beaverton, Buckeye, Bentley, Edenville.....$0.90
Freeman.....$0.82
(Effective Dec. 13, 1938)
West Branch, Arenac, and equal grades....$0.70

Posted by Bay Pipe Line Corp.
(Effective Jan. 1, 1939)
Bentley and Buckeye.....$0.90
Saginaw and Wise.....$0.925

CENTRAL STATES FIELDS

Posted by Ohio Oil Co.
(Effective Oct. 13, 1938)
Illinois and Princeton.....$1.05
Illinois Basin.....$1.15
Owensboro, (Western Ky.).....$1.10
Lima, O.....$0.90

Posted by Sohio Corp.
Illinois Basin:
Beecher City (Effective Oct. 13, 1938).....$1.15
Centralia Field:
Congested District (Effective Oct. 1, 1938) .$1.15
Area Outside Congested District (Effective Oct. 13, 1938).....$1.15

Posted by Carter Oil Co.
(Effective Oct. 14, 1938)
Louden, Fayette County, Ill.....$1.15

Posted by Ashland Oil & Transportation Co.
(Effective Oct. 14, 1938)
Somerset Oil in Ashland Lines, Kentucky:
Big Sandy River.....$1.12
Kentucky River.....$1.20

Posted by Stoll Oil Refining Co.
(Effective Nov. 10, 1938)
Stoll Pipe Line Oil (Ky.).....$1.00

Posted by Fordsville Gathering Line, Inc.
(Effective Dec. 24, 1938)
Birk City Field, Ky.....$1.05
(Effective Oct. 13, 1938)
Owensboro District, Ky.....$1.10

CANADIAN FIELDS

Posted by Imperial Oil Limited
Western Ontario
(Effective Oct. 25, 1938)
Petrolia.....$1.90
Oil Springs.....$1.97

Alberta—Turner Valley
(Prices f.o.b. field tankage)
(Effective Jan. 5, 1938)

Crude Oil

40-40.9°	$1.14	53-53.9	$1.40
41-41.9	1.16	54-54.9	1.42
42-42.9	1.18	55-55.9	1.44
43-43.9	1.20	56-56.9	1.46
44-44.9	1.22	57-57.9	1.48
45-45.9	1.24	58-58.9	1.50
46-46.9	1.26	59-59.9	1.52
47-47.9	1.28	60-60.9	1.54
48-48.9	1.30	61-61.9	1.56
49-49.9	1.32	62-62.9	1.58
50-50.9	1.34	63-63.9	1.60
51-51.9	1.36	64-64.9	1.62
52-52.9	1.38		

Crude Naphtha, 65 grav. & above.....$2.14

Absorption Gasoline
90% Rec., 20 lb. Reid v.p.....$1.94
90% Rec., 17 lb. Reid v.p.....$2.08

MID-CONTINENT
Oklahoma-Kansas

*(Effective Oct. 11 to 22, 1938; and Feb. 16, 1939)

	S. O. Indiana	Carter Magnolia Shell	Continental Texas Co.	Sinclair-Prairie
Below 21°	$0.70	$0.60	....	....
21-21.9	.72	.63	....	....
22-22.9	.74	.66	....	....
23-23.9	.76	.69	....	....
24-24.9	.78	.72	....	....
25-25.9	.80	.75	....	$0.58
26-26.9	.82	.78	....	.63
27-27.9	.84	.81	....	.68
28-28.9	.86	.84	$0.86	.73
29-29.9	.88	.87	.88	.78
30-30.9	.90	.90	.90	.82
31-31.9	.92	.92	.92	.86
32-32.9	.94	.94	.94	.90
33-33.9	.96	.96	.96	.96
34-34.9	.98	.98	.98	.98
35-35.9	1.00	1.00	1.00	1.00
36-36.9	1.02	1.02	1.02	1.02
37-37.9	1.04	1.04	1.04	1.04
38-38.9	1.06	1.06	1.06	1.06
39-39.9	1.08	1.08	1.08	1.08
40 & above	1.10	1.10	1.10	1.10

*Effective by Carter Oil, Oct. 13, posting in Okla. only; Continental Oil, Oct. 11, with lowest grade below 29; Magnolia, Oct. 12, posting in Okla. only; Shell, Oct. 22; Sinclair-Prairie, Feb. 16, 1939; S. O. Indiana, Oct. 17; The Texas Co., Oct. 12.

North-North Central and Central Texas

*Effective 1938:	Stanolind Oct. 17	†Sinclair-Prairie Oct. 11	*Texas Co. *Continental *Magnolia
Below 21°..	$0.60	....	....
21-21.9....	.62	....	....
22-22.9....	.64	....	....
23-23.9....	.66	....	....
24-24.9....	.68	$0.76	$0.79
25-25.9....	.70	for	for
26-26.9....	.72	oil	oil
27-27.9....	.74	below	below
28-28.9....	.76	29°.	29°.
29-29.9....	.78	.78	.81
30-30.9....	.80	.80	.83
31-31.9....	.82	.82	.85
32-32.9....	.84	.84	.87
33-33.9....	.86	.86	.89
34-34.9....	.88	.88	.91
35-35.9....	.90	.90	.93
36-36.9....	.92	.92	.95
37-37.9....	.94	.94	.97
38-38.9....	.96	.96	.99
39-39.9....	.98	.98	1.01
40 & above.	1.00	1.00	1.03

*Effective Oct. 11, by Continental, in North Tex.; Oct. 12, by Texas Co. in North & North Central Texas. Texas Co.'s lowest grade is 28-28.9, at $0.79; by Magnolia, Dec. 3, in N. and N. Central Texas.
†Sinclair-Prairie prices are in N. Cent. Texas and Mexia.

Jefferson County, Texas

Posted by Magnolia Petroleum Co.

Beaumont
(Effective Oct. 12, 1938)

Below 20°	$0.79	30-30.9	$1.08
20-20.9	.82	31-31.9	1.10
21-21.9	.85	32-32.9	1.12
22-22.9	.88	33-33.9	1.14
23-23.9	.91	34-34.9	1.16
24-24.9	.94	35-35.9	1.18
25-25.9	.97	36-36.9	1.20
26-26.9	1.00	37-37.9	1.22
27-27.9	1.02	38-38.9	1.24
28-28.9	1.04	39-39.9	1.26
29-29.9	1.06	40 & above	1.28

*For below 21°.
Oct. 11, '38, Stanolind Oil & Gas Co. posted same gravity and price schedule in West Beaumont field as Magnolia.

TEXAS FIELDS

Posted by Humble Oil & Refining Co.
(*West Central Texas)
(Effective Dec. 3, 1938)

24-24.9	$0.71	33-33.9	$0.89
25-25.9	.73	34-34.9	.91
26-26.9	.75	35-35.9	.93
27-27.9	.77	36-36.9	.95
28-28.9	.79	37-37.9	.97
29-29.9	.81	38-38.9	.99
30-30.9	.83	39-39.9	1.01
31-31.9	.85	40 & above	1.03
32-32.9	.87		

*Includes Brown, Callahan, Coleman, Comanche, Eastland, Fisher, Haskell, Jones, Shackelford, Stephens, Throckmorton and Young counties.
Note: Effective Oct. 1, 1937, Humble prices are based on 100% tank tables at 60F.

East Central Texas
(Effective Oct. 11, 1938)

23-23.9	$0.78	32-32.9	$0.96
24-24.9	.80	33-33.9	.98
25-25.9	.82	34-34.9	1.00
26-26.9	.84	35-35.9	1.02
27-27.9	.86	36-36.9	1.04
28-28.9	.88	37-37.9	1.06
29-29.9	.90	38-38.9	1.08
30-30.9	.92	39-39.9	1.10
31-31.9	.94	40 and above	1.12

Posted by Pan American Pipe Line Co.
(Effective Feb. 15, 1939)
Cayuga, Anderson county.....$0.68

*Including Anderson, Cherokee, Limestone, Navarro counties.

PANHANDLE TEXAS

Posted by Humble Oil & Refining Co.
(Effective Dec. 3, 1938)

	Gray County	Carson-Hutchinson
28-28.9	$0.72	$0.67
29-29.9	.74	.69
30-30.9	.76	.71
31-31.9	.78	.73
32-32.9	.80	.75
33-33.9	.82	.77
34-34.9	.84	.79
35-35.9	.86	.81
36-36.9	.88	.83
37-37.9	.90	.85
38-38.9	.92	.87
39-39.9	.94	.89
40 & above	.96	.91

Effective Oct. 11, 1938, Sinclair Prairie posted same prices in Panhandle Texas as Humble posted Dec. 3. Dec. 3, Magnolia met Humble.

EAST TEXAS

Gulf, Humble, Magnolia, Sinclair Prairie, Stanolind, Texas Co., Tide-Water Associated.... $1.10
*Effective Oct. 11 by Humble, Sinclair Prairie, and Stanolind; Oct. 12 Magnolia, Texas, Tide Water; Oct. 13 by Gulf.

Shell also posted on Oct. 11, 1938, in Livingston area, Polk County, Texas, $1.10.

NORTHEAST TEXAS

(Posted by Humble, Oct. 11, 1938)
Talco.....$0.55

(Posted by Magnolia, Oct. 12, 1938)
Cass County and Panola County, Tex.:
Same gravity and price schedule as S. O. Louisiana posts for N. La.-Ark. Crude, which see under that company.

(Posted by The Texas Co., Oct. 12, 1938)
Cass County.....$1.05

WEST TEXAS AND NEW MEXICO

Posted by Humble Oil & Refining Co.
(Effective Oct. 11, 1938)
(Including Andrews, Crane, Crockett, Ector, *Gaines, Glasscock, Howard, *Reagan, Upton, Winkler and *Yoakum Counties, Texas and Lea county, New Mexico).

Below 20	$0.53	30-30.9	$0.75
20-20.9	.55	31-31.9	.77
21-21.9	.57	32-32.9	.79
22-22.9	.59	33-33.9	.81
23-23.9	.61	34-34.9	.83
24-24.9	.63	35-35.9	.85
25-25.9	.65	36-36.9	.87
26-26.9	.67	37-37.9	.89
27-27.9	.69	38-38.9	.91
28-28.9	.71	39-39.9	.93
29-29.9	.73	40 & above	.95

Pecos, West Texas.....$0.78
*Added to this posting, Aug. 29, 1938.
Oct. 12, '38, Magnolia met Humble in Crane, Glasscock, Howard, Mitchell, Upton and Winkler counties, except that its lowest grade is below 25 at $0.63.
Oct. 11, '38, Shell Petroleum met Humble in Crane, Ector, Glasscock, Howard, Upton and Winkler counties, Tex., and Lea county, N. M., except that its highest grade is 36 & above, at $0.87. It met Humble in Pecos, and in Pecos county Yates shallow pool, posted $0.65.
Oct. 11, '38, Stanolind Oil & Gas Co. met Humble in Hendrick field, Winkler, except that its lowest grade is below 26 at $0.65.
Oct. 12, '38, The Texas Co. posted in Ward and Winkler counties, Tex., and Lea county, N. M., same prices as Humble in West Texas, except that its lowest grade is below 26, at $0.65, and its highest grade, 36 and above, at $0.87.
Oct. 11, Sinclair Prairie met Humble, except its lowest grade is below 25 grav., at $0.63.

Posted by Sinclair Prairie Oil Marketing Co.
(Effective Oct. 11, 1938)
Eddy county, N. Mex.....$0.77

Posted by Continental Oil Co.
(Effective Oct. 11, 1938)
Artesia, Jackson and Maljamar pools, New Mexico: gravity schedule beginning with below 29, at $0.61; 29-29.9, at $0.63; plus 2c differential for each gravity, up to 40 & above, at $0.85.

COLORADO

Posted by Continental Oil Co.
(Effective Oct. 11, 1938)
Ft. Collins and Wellington

Below 29	$0.81	35-35.9	$0.95
29-29.9	.83	36-36.9	.97
30-30.9	.85	37-37.9	.99
31-31.9	.87	38-38.9	1.01
32-32.9	.89	39-39.9	1.03
33-33.9	.91	40 & above	1.05
34-34.9	.93		

Canon City and Florence, Col.....$0.90

SOUTH AND SOUTHWEST TEXAS

All Shown Below Posted by Humble Oil & Refining Co.
(Effective Oct. 11, 1938)
Carroll, Clark, Darst Creek, Hilbig, Salt Flat and Zoboroski crudes.....$0.96
Van crude.....$0.93
Conroe.....$1.27
(Effective Dec. 3, 1938)
Flour Bluff.....$1.23
Oct. 12, '38, Magnolia met Humble in Darst Creek; posted $0.87 in Luling; $0.99 in Lytton Springs; $1.14 for Cleveland, and $1.02 in Hardin, both in Liberty county, Tex.
Oct. 12, '38, The Texas Co. met Humble in Darst Creek.

Anahuac and Dickinson
(Effective Dec. 3, 1938)

Below 20°	$0.74	30-30.9	$1.03
20-20.9	.77	31-31.9	1.05
21-21.9	.80	32-32.9	1.07
22-22.9	.83	33-33.9	1.09
23-23.9	.86	34-34.9	1.11
24-24.9	.89	35-35.9	1.13
25-25.9	.92	36-36.9	1.15
26-26.9	.95	37-37.9	1.17
27-27.9	.97	38-38.9	1.19
28-28.9	.99	39-39.9	1.21
29-29.9	1.01	40 & above	1.23

*Includes Cedar Point, Fairbanks, Gillock, Hull, Pierce Junction and Raccoon Bend (shallow sand).

Raccoon Bend (Deep sand crude) Tomball and Satsuma
(Effective Dec. 3, 1938)

22-22.9	$0.95	32-32.9	$1.15
23-23.9	.97	33-33.9	1.17
24-24.9	.99	34-34.9	1.19
25-25.9	1.01	35-35.9	1.21
26-26.9	1.03	36-36.9	1.23
27-27.9	1.05	37-37.9	1.25
28-28.9	1.07	38-38.9	1.27
29-29.9	1.09	39-39.9	1.29
30-30.9	1.11	40 & above	1.31
31-31.9	1.13		

Dec. 3, Magnolia met above price and gravity schedule in Tomball.

(Continued on next page)

CRUDE OIL MARKETS (Continued from preceding page)

Posted by Humble

**Mirando*

(Effective Dec. 3, 1938)

Below 20°	$0.74	30-30.9	$1.03
20-20.9	.77	31-31.9	1.05
21-21.9	.80	32-32.9	1.07
22-22.9	.83	33-33.9	1.09
23-23.9	.86	34-34.9	1.11
24-24.9	.89	35-35.9	1.13
25-25.9	.92	36-36.9	1.15
26-26.9	.95	37-37.9	1.17
27-27.9	.97	38-38.9	1.19
28-28.9	.99	39-39.9	1.21
29-29.9	1.01	40 & above	1.23

*Includes Duval, Jim Hogg, Jim Wells, Webb and Zapata counties, Tex. and Heyser and Placedo crudes.

Oct. 12, '38, Texas Co. posted for Duval-Mirando, $0.77 for below 21, plus 3c differential to 26-26.9, $0.95; 27-27.9, $0.97; 28 & above, $0.99.

Dec. 3, Humble's Mirando schedule met by Magnolia.

LOUISIANA-ARKANSAS

Posted by Standard Oil Co. of Louisiana

(Effective Oct. 5, 1938)

	*N. La.-Ark.	†Columbia County, Ark.	‡South Louisiana
Below 21°	$0.73	$0.66	$0.74
21-21.9	for	for	.77
22-22.9	oil	oil	.80
23-23.9	Below	Below	.83
24-24.9	25°	25°	.86
25-25.9	$0.75	$0.68	.89
26-26.9	.77	.70	.92
27-27.9	.79	.72	.94
28-28.9	.81	.74	.96
29-29.9	.83	.76	.98
30-30.9	.85	.78	1.00
31-31.9	.87	.80	1.02
32-32.9	.89	.82	1.04
33-33.9	.91	.84	1.06
34-34.9	.93	.86	1.08
35-35.9	.95	.88	1.10
36-36.9	.97	.90	1.12
37-37.9	.99	.92	1.14
38-38.9	1.01	.94	1.16
39-39.9	1.03	.96	1.18
40 & above.	1.05	.98	1.20

(Effective Oct. 5, 1938)

Smackover, Ark. $0.73

Urania, La. (Ark. Fuel Oil Co., Jan. 28, '37) $1.02

*Includes Bunkie, Caddo, Carterville, DeSoto, Homer, Haynesville, Rodessa, Sabine and Sarepta, in N. La.; El Dorado and Miller County, Ark. (latter is Ark. part of Rodessa field).

Note: S. O. Louisiana prices in all La.-Ark. fields, effective Oct. 5, 1938, are on 100% tank table basis.

†Includes Buckner, Magnolia, and Village pools.

‡Includes these fields: Baton Rouge, Bayou, Choctaw, Cheneyville, Darrow, Jeanerette, Lirette, N. Crowley and Roanoke.

Posted by Continental Oil Co.

(Effective Oct. 11, 1938)

Tepetate and Ville Platte, La. $1.03

(Effective Jan. 1, 1939)

Abbeville, La.

Below 36	$0.92	38-38.9	$0.98
36-36.9	.94	39-39.9	1.00
37-37.9	.96	40 & above	1.02

Oct. 12, 1938, Magnolia Petroleum and The Texas Co. posted same gravity and price schedule as S. O. La. posts in N. La.-Ark. in these fields: Magnolia, in Bull Bayou, Cotton Valley, Haynesville, Pine Island, and Rodessa, La., and Eldorado and Rainbow, Ark.; Texas Co. in N. La. Both also met S. O. La. in Smackover. Texas Co. posted $1.24 for Garden Island, La. and $1.04 for Lafitte, La.

*GULF COASTAL FIELDS

Posted by Humble Oil & Refining Co.

†(Effective Oct. 11, 1938)

Below 20	$0.79	30-30.9	$1.08
20-20.9	.82	31-31.9	1.10
21-21.9	.85	32-32.9	1.12
22-22.9	.88	33-33.9	1.14
23-23.9	.91	34-34.9	1.16
24-24.9	.94	35-35.9	1.18
25-25.9	.97	36-36.9	1.20
26-26.9	1.00	37-37.9	1.22
27-27.9	1.02	38-38.9	1.24
28-28.9	1.04	39-39.9	1.26
29-29.9	1.06	40 & above	1.28

†Effective Dec. 3, 1938, gravities up to 45 & above discontinued in Refugio, Saxet, Greta, O'Connor-McFadden, Taft, Plymouth and Tom O'Connor fields.

*Humble's prices apply in these Texas fields: Amelia, Clear Lake, Goose Creek, Mykawa, Sugarland, Thompsons, Webster and West Columbia; also Refugio, Saxet, Greta, O'Connor-McFadden, Taft, Plymouth and Tom O'Connor fields.

Oct. 11, 1938, Stanolind posted in Clinton, Hastings, High Island, So. Houston, and Spindletop, same prices as Humble in Texas Gulf Coast fields, except that Stanolind's lowest grade is below 21, at $0.82.

Oct. 12, 1938, The Texas Co. posted for Texas & La. Gulf Coast crude: $0.82 for below 21 plus 3c to 26-26.9, which is $1; from there on, 2c, to 34 & above, which is $1.16. In Refugio, same as other Gulf Coast, except highest gravity is 28 & above, $1.04.

Effective Oct. 11, 1938, Sinclair Prairie met Humble's Gulf Coast price & gravity schedule.

ROCKY MOUNTAIN FIELDS

Posted by Stanolind Oil & Gas Co.

(Effective Oct. 11, 1938)

Salt Creek, (except Tensleep crude), Midway and Dutton Creek, Wyo., same schedule as Stanolind posts in Oklahoma-Kansas, ranging from $0.86 to $1.10, which see under Mid-Continent crude on previous page.

Tensleep, Salt Creek field	$0.646
Iles, light, Col.	0.98
Iles, heavy	0.92
Elk Basin, light	0.90
Grass Creek, light	0.90
Frannie light	0.55
Grass Creek, heavy	0.40
Hamilton Dome, Wyo.	0.35
Frannie heavy	0.42

Posted by Ohio Oil Co.

(Effective Oct. 11, 1938)

Elk Basin, Wyo.	$0.90
Grass Creek, light	0.90
Rock Creek	1.00
Lance Creek	0.77
Dry Creek, Mont.	0.92

(Effective May 1, 1938)

Grass Creek, heavy $0.50

(Effective Nov. 16, 1937)

Sunburst, Mont. $0.90

Posted by Continental Oil Co.

(Effective Oct. 11, 1938)

Cat Creek, Mont.	$1.10
Big Muddy, Wyo.	0.98
Lance Creek, Wyo.	0.77

CALIFORNIA, *Posted by Standard Oil of California*

All gravities above those quoted take highest price offered in the field. Prices effective Feb. 26, 1936, except Huntington Beach, Playa del Rey, Santa Fe Springs, Kern Front, Signal Hill (Long Beach) effective March 7, 1936; Elk Hills effective June 22, 1936; Lakeview Area, Aug. 19, 1936; El Segundo and Wilmington, Oct. 15, 1937; Greeley-Canal, July 9, 1938; Santa Maria Valley, by Union Oil, Oct. 15, 1938.

Gravity	Signal Hill (Long Beach) El Segundo †Wilmington	Seal Beach	Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda Brea Canon	Athens Rosecrans	Dominguez	Torrance	Richfield	Whittier East Coyote (La Habra)	Montebello	West Coyote Hills	Santa Fe Springs	‡Newhall and others	Mountain View	Elk Hills	Buena Vista Hills Midway-Sunset Lakeview Area	Greeley-Canal (Kern County)	Lost Hills	Coalinga	Wheeler Ridge	Santa Maria (Union Oil)
13-13.9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	$0.63
14-14.9	$0.80	$0.79	$0.74	$0.78	$0.79	$0.80	$0.76	....	....	$0.80	$0.76	$0.76	$0.77	$0.78	....	$0.70	....	$0.70	$0.70	....	$0.70	$0.70	....	.65
15-15.9	.80	.79	.74	.78	.79	.80	.76	....	....	.80	.76	.76	.77	.78	....	.70	....	.70	.70	....	.70	.70	....	.68
16-16.9	.80	.79	.74	.78	.79	.80	.76	....	....	.80	.76	.76	.77	.78	....	.70	....	.70	.70	....	.70	.70	....	.70
17-17.9	.80	.79	.74	.78	.81	.80	.76	....	....	.80	.76	.76	.77	.78	....	.70	....	.70	.70	....	.70	.70	....	.70
18-18.9	.80	.79	.74	.78	.84	.80	.78	....	....	.82	.76	.76	.77	.78	....	.70	....	.70	.70	....	.70	.70	....	....
19-19.9	.82	.79	.74	.82	.87	.84	.81	....	....	.85	.76	.78	.77	.78	....	.70	.70	.74	.74	....	.74	.71	.70	....
20-20.9	.85	.79	.74	.85	.90	.88	.84	....	....	.88	.78	.82	.77	.80	....	....	.70	.78	.78	....	.78	.72	.70	....
21-21.9	.88	.79	.74	.89	.93	.93	.88	....	....	.91	.80	.85	.77	.84	.78	....	.73	.82	.82	....	.82	.74	.70	....
22-22.9	.92	.82	.74	.92	.96	.98	.92	....	....	.93	.84	.89	.79	.88	.78	....	.77	.87	.87	....	.86	.78	.72	....
23-23.9	.95	.86	.77	.96	.99	1.02	.96	.84	.79	.96	.88	.93	.82	.92	.78	....	.80	.92	.92	....	.90	.82	.76	....
24-24.9	.99	.91	.80	1.00	1.02	1.06	.99	.88	.81	.99	.91	.96	.85	.96	.82	....	.84	.97	.97	....	.94	.86	.79	....
25-25.9	1.03	.95	.82	1.03	1.05	1.11	1.03	.93	.83	1.02	.95	....	.89	.99	.86	....	.88	1.01	1.01	....	.98	.90	.83	....
26-26.9	1.06	1.00	.85	1.07	1.09	1.16	1.06	.98	.86	1.05	.98	....	.92	1.03	.90	....	.91	1.06	1.06	....	1.02	....	....	....
27-27.9	1.10	1.05	.88	1.11	1.12	....	1.10	1.03	.88	....	1.02	....	.96	1.06	.95	....	.95	1.10	1.10	$0.91	1.06	....	....	....
28-28.9	1.14	1.10	.90	1.14	1.15	....	1.14	1.07	.90	....	1.06	....	.99	1.10	.99	....	.99	1.15	1.15	.94	1.10	....	....	....
29-29.9	1.17	1.15	.93	1.18	1.18	Pipe	1.17	1.12	.93	....	1.09	....	1.03	1.14	1.03	....	1.02	1.20	1.20	.98	1.14	....	....	....
30-30.9	1.21	1.19	.95	1.22	1.21	Line	1.21	1.17	.95	....	....	....	1.07	1.17	1.08	....	1.06	1.25	1.25	1.02	1.18	....	....	....
31-31.9	*Ellwood Terrace			....	1.24		1.24	1.22	.97	....	....	....	1.11	1.21	1.12	....	1.09	1.29	1.29	1.06	Kettleman Hills			....
32-32.9				....	1.27		1.27	1.27	1.00	....	....	....	1.14	1.25	1.16	....	1.13	1.34	1.34	1.09				....
33-33.9	....	1.28	....	....	....	F.O.B. Standard	....	1.32	....	....	....	....	1.18	1.28	1.20	....	1.17	1.38	1.38	1.13	....	1.19	....	....
34-34.9	....	1.32	....	....	....		....	1.37	....	....	....	....	1.22	1.32	1.25	....	1.20	....	....	1.17	....	1.23	....	....
35-35.9	....	1.35	....	....	....		....	1.42	....	....	....	....	1.25	....	1.29	....	....	....	....	1.20	....	1.27	....	....
36-36.9	....	1.39	....	....	....		....	1.46	....	....	....	....	1.29	....	1.33	....	....	....	....	1.24	....	1.31	....	....
37-37.9	....	1.43	....	....	....		....	1.51	....	....	....	....	1.32	....	1.37	....	....	....	....	1.28	....	1.35	....	....
38-38.9	....	....	....	....	....		....	1.56	....	....	....	....	1.36	....	1.42	....	....	....	....	1.31	....	1.39	....	....
39-39.9	....	....	....	....	....		....	1.61	....	....	....	....	1.40	....	....	....	....	....	....	1.35	....	1.43	....	....
40-40.9	....	....	....	....	....		....	1.66	....	....	....	....	1.43	....	....	....	....	....	....	1.39	....	....	....	....
41-41.9	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	1.43	....	....	....	....
42-42.9	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	1.46	....	....	....	....
43-43.9	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	1.50	....	....	....	....
44-44.9	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	1.54	....	....	....	....
45-45.9	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	1.57	....	....	....	....
46-46.9	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	1.61	....	....	....	....
47-47.9	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	1.65	....	....	....	....
48-48.9	....	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	1.68	....	....	....	....

*F. o. b. ship.

‡Also McKittrick, Kern River. Kern Front and Round Mountain $0.70 thru 19.9 gravity; no higher gravity quoted.

†Wilmington prices differ on gravities below 18.9. Prices are: 14-16.9, $0.75; 17-17.9, $0.77; and 18-18.9, $0.79; rest of schedule same as Signal Hill.

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Socony Reduces Fuel Oil Prices

N. P. N. News Bureau

NEW YORK—Socony-Vacuum Oil Co. on March 1 reduced its tank car prices of light heating oil 0.125-cent at all "normal" points throughout New York state and New England. No changes were made at New York City, Boston or Providence, and several smaller points in New England.

Auto Show Set For Oct. 15

DETROIT—The 40th annual National Automobile Show will be held the week of Oct. 15 at the Grand Central Palace, New York, according to the Automobile Manufacturers Assn. here.

Reasons for selecting this date three weeks earlier than last year was to afford dealers a longer fall market and to stabilize employment in the auto and allied industries.

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M. L. Gosney

Marvin L. Gosney, recently elected vice-president and treasurer of Sinclair Refining Co., principal operating subsidiary of Consolidated Oil Corp., has been with the Sinclair companies for the past 22 years.

Born and educated in Missouri, Gosney entered the employ of the Fort Dearborn National Bank in Chicago after leaving college. He resigned as manager of the bank's transit department in 1916 to join Sinclair.

He is married, has three children, and resides in Scarsdale, N. Y.